SAMSUNG

VIDEO CASSETTE RECORDER

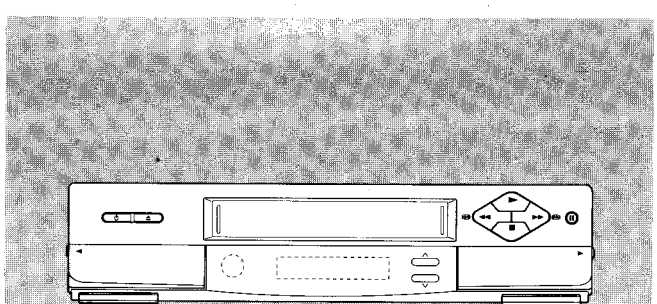
SV-30K/40K/70K/80K
SVR-30D/40D/70D/80D

VHS
PAL SECAM

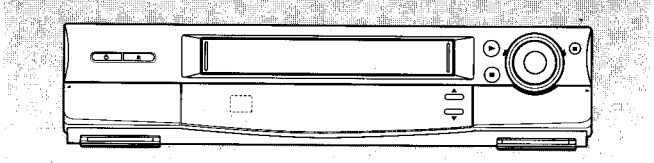
SERVICE Manual

For Mechanical disassembly & adjustment, refer to the
"Mechanical Manual". (DX5-R/RC, DX6-R/RC → 64739-0067-00)

VIDEO CASSETTE RECORDER



SV-30K/70K/SVR-30D/70D



SV-40K/80K/SVR-40D/80D

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IMPORTANT SERVICE GUIDE

1. SERVICING FEATURES OF THE X-5 CHASSIS

After replacing the cylinder ass'y, the remote control (part number : **69099-633-252**) can be used to adjust the "X-point tracking center adjustment (tape path alignment) and "head s/w point" adjustment. The remote control part number **"633-252"** is printed on the inlay of remote control.

1) How to adjust "X-point tracking center" when adjusting tape path alignment :
   Press the **"1"** button and the **"INPUT"** button simultaneously. This will adjust the tracking center automatically.
2) How to adjust "head s/w point" :
   Press the **"3"** button and the **"INPUT"** button simultaneously. This will automatically position the H'd s/w at 6.5H ± 0.5H.

If the remote control is not available :

- See page 65 of mechanical manual for X-point tracking center adjustment.
- See page 7-3 of service manual for Head S/W Point adjustment.

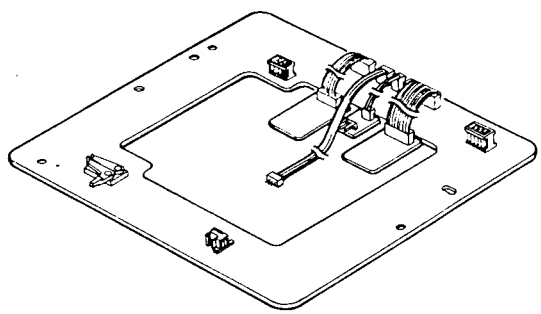
2. SERVICE GUIDE

1) For this VCR chassis, the program switch and the sensors (start/end/reel) are located on the main PCB, not on the deck ass'y.
2) As long as the deck ass'y is connected to the main PCB, all repairs are possible.
   Important : In order to repair the main PCB without the deck ass'y connected, the X-5 chassis jig should be used.
3) To emulate the function of the sensors, push the **"SERVICE"** key(SW711) on the function-timer PCB.
4) The X-5 chassis jig can be used for the following :
   - When repairing or confirming the operation of the deck ass'y.
   - When replacing or repairing the components located under the deck ass'y.
   - When repairing the function-timer PCB.
5) The X-5 chassis jig can not be used for the following :
   - Repairing defects in the video section.
   - Repairing defects in the audio section.
   - If the defect is related to tape speed.

✱ Accurate repair may not be possible due to external noise between the deck ass'y and main PCB.
✱ If tape control signal is not connected to the jig, VCR must be operated in SP mode.

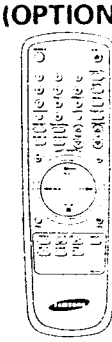
3. SERVICE JIG

JIG ITEM	PART NO.	USE
X-5 CHASSIS JIG	68140 - 500 - 013	Connects the dexk ass'y to the main PCB connecting cable.
REMOTE CONTROL ASS'Y	69099 - 633 - 252	X-point tracking center & head S/W point adjustment.



(X-5 CHASSIS JIG)

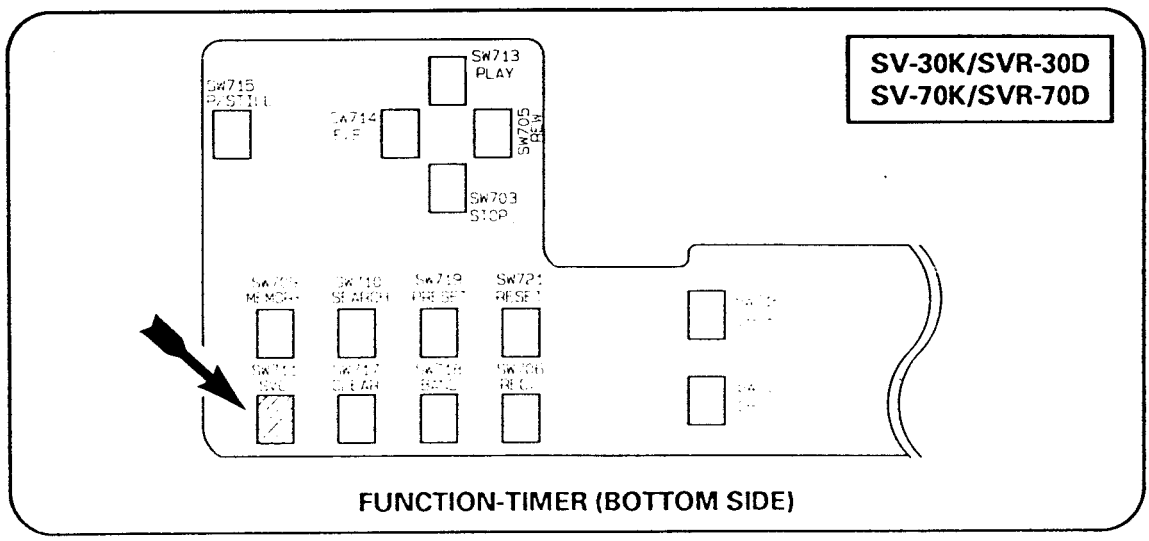
(OPTIONAL)



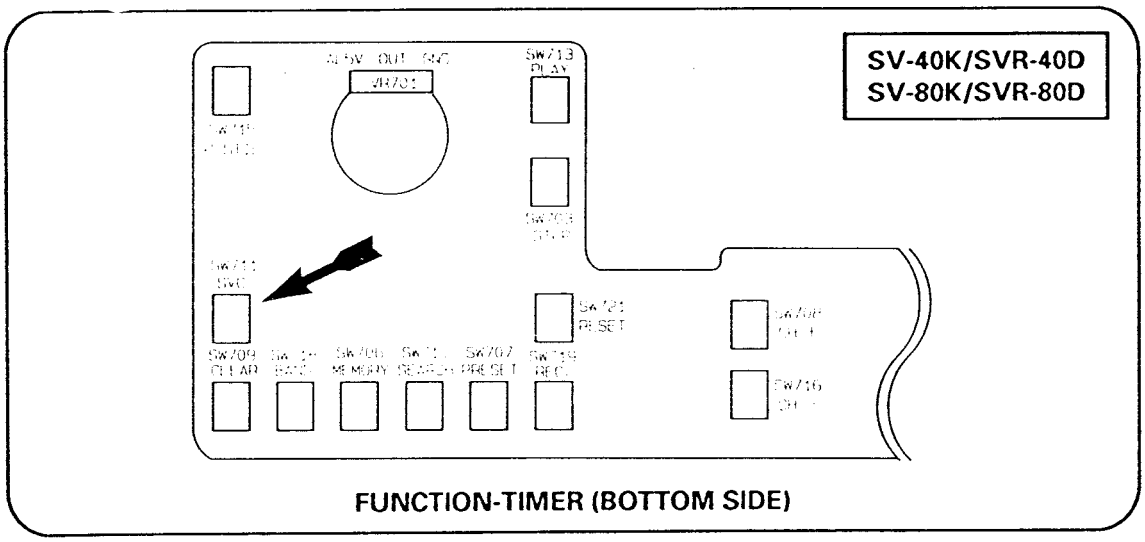
(REMOTE CONTROL ASS'Y)

4. HOW TO CONNECT X-5 CHASSIS JIG

1) Unplug the power cord from AC outlet.
2) Remove the deck ass'y from main PCB (See page 3-3 of service manual).
3) To emulate the function of the sensors, push the **"SERVICE"** key(SW711) on the function-timer PCB (See diagram below).



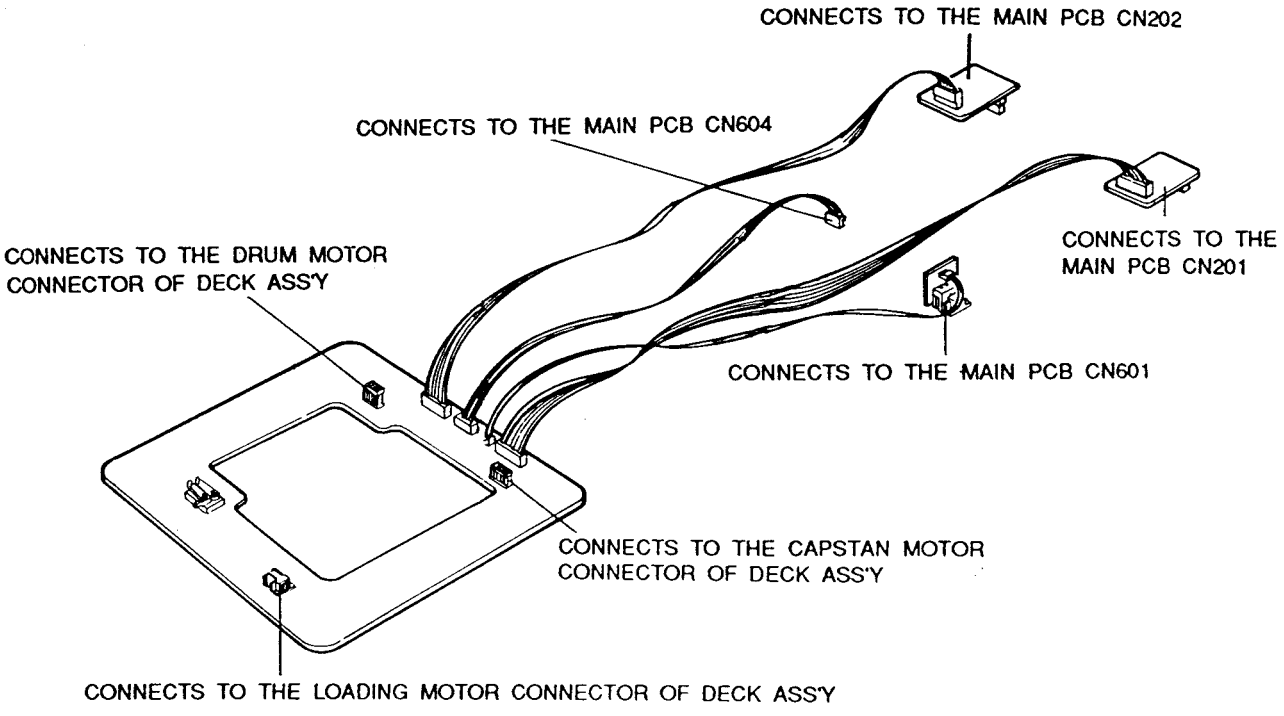
FUNCTION-TIMER (BOTTOM SIDE)

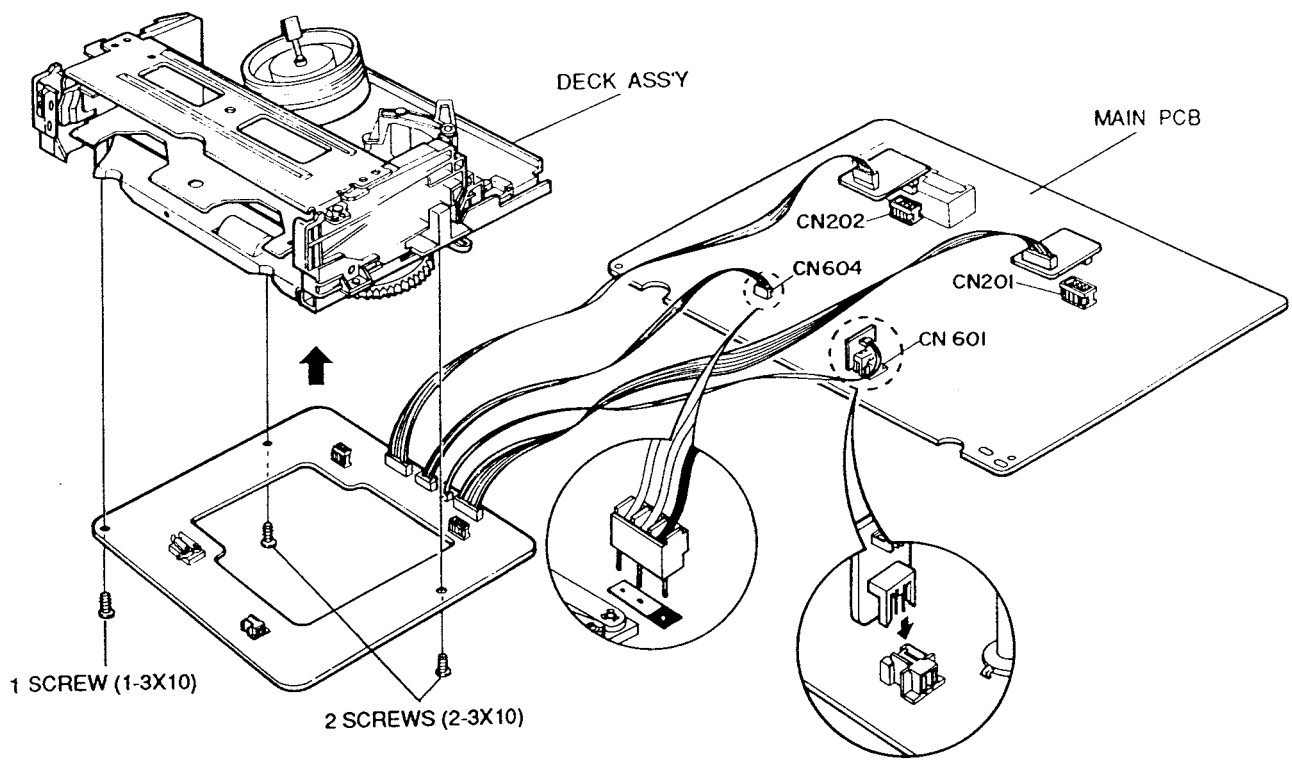


FUNCTION-TIMER (BOTTOM SIDE)

NOTE : After completing repairs, press SW721 on the function-timer PCB in order to reset.

4) Insert wafers of drum motor, capstan motor and loading motor on X-5 chassis jig into each connectors of deck ass'y and then secure with three screws.
5) Solder the 3 leads of the jig cable to the CN604 on the main PCB.
6) Apply power to the function-timer PCB.
7) Insert a test tape into the housing ass'y.
8) Simultaneously touch the start and end sensor LEDs on the PCB, so that the tape loads automatically. After the tape is loaded, all of the function buttons on the function-timer PCB can be used.
9) If the test tape is ejected while the jig is in use, attempt to re-load the tape by simultaneously touching the start and end sensor LEDs. If the tape still does not road, reset the function-timer PCB by pressing SW721.


CONNECTS TO THE MAIN PCB CN202
CONNECTS TO THE MAIN PCB CN604
CONNECTS TO THE DRUM MOTOR CONNECTOR OF DECK ASS'Y
CONNECTS TO THE MAIN PCB CN201
CONNECTS TO THE MAIN PCB CN601
CONNECTS TO THE CAPSTAN MOTOR CONNECTOR OF DECK ASS'Y
CONNECTS TO THE LOADING MOTOR CONNECTOR OF DECK ASS'Y


DECK ASS'Y
MAIN PCB
CN202
CN604
CN201
CN 601
1 SCREW (1-3X10)
2 SCREWS (2-3X10)

1. PRECAUTIONS

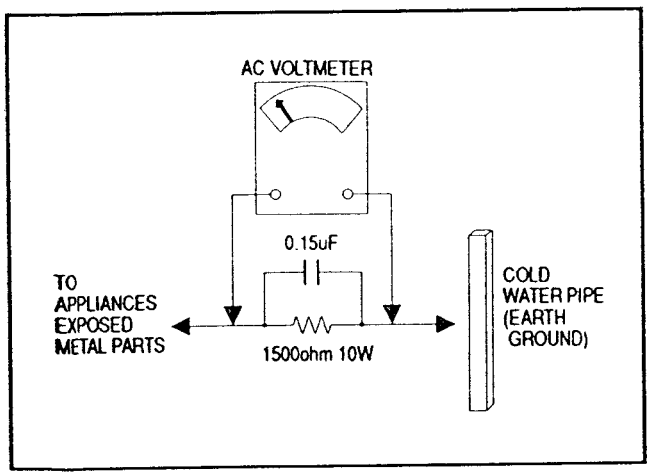
1-1. SAFETY PRECAUTIONS

GENERAL GUIDE LINE

1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation paper shields are properly installed.
3. Use an isolation transformer when servicing.
4. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

LEAKAGE CURRENT COLD CHECK

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screw heads, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be between 1 to 5.2 megohms.
   When the exposed metal does not have a return path to the chassis, the reading must be oo.



LEAKAGE CURRENT HOT CHECK (See Fig.)

1. Plug the AC cord directly into the AC outlet. (Do not use an isolation transformer for this check.)
2. Connect a 1.5K, 10 watt resistor, in parallel with a 0.15uF capacitor, between each exposed metallic part on the set and a good earth ground such as a water pipe.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester may be used to make the hot checks, leakage current must not exceed 0.5 milliamp. If a measurement is outside the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

1-2. ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called "Electrostatically Sensitive (ES) Devices". Examples of typical ES devices are integrated circuits, some field effect transistors and semiconductor "chip" components.
The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

CAUTION : Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise, harmless motion such as the brushing together of your clothes fabric to the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

1-3. SAFETY INSTRUCTIONS

1. **Read Instructions** : All the safety and operating instructions should be read before the unit is operated.

2. **Retain Instructions** : The safety and operating instructions should be retained for future reference.

3. **Heed Warnings** : All warnings on the unit and the operating instructions should be adhered to.

4. **Follow Instructions** : All operating and maintenance instructions should be followed.

5. **Cleaning** : Unplug this unit from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a dry cloth for dusting cabinet.

6. **Attachments** : Do not use attachments not recommended by the unit product manufacturer, as they may be hazardous or cause damage.

7. **Water and Moisture** : Do not use this unit near water, i.e, bath tub, wash bowl, kitchen sink, laundry tub, in a wet basement, near a swimming pool, or the lake.

8. **Accessories** : Do not place this unit on an unstable cart, stand, tripod, bracket, or table. The unit, if dropped could cause damage or injury. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the unit. Any mounting of the unit should follow the manufacturer's instructions and should use a mounting accessory recommended by the manufacturer.

a. An appliance and cart combination should be moved with care. Quick stops, excessive force, or an uneven surface may cause the appliance and cart combination to overturn.

PORTABLE CART WARNING
(Symbol provided by RETAC)

9. **Ventilation :** Slot and opening in the cabinet are provided for ventilation to ensure reliable operation of the unit and to protect it from overheating. These openings must not be blocked or covered. Never place your unit on a bed, sofa, rug, or similar surface, ;or on or near a radiator or heat register. This unit should not be placed in a built-in installation such as a book case or rack unless proper ventilation is provided, or manufacturer's instructions have been adhered to.

10. **Power Sources :** This unit should be operated only from the type of power source indicated on the label. If you are not sure of the type of power supply to your home, consult your appliance dealer or local power company. To operate the unit by battery or other power source, consult the operating instructions.

11. **Grounding and Polarization :** This unit may be equipped with either a polarized 2-wire AC line plug (a plug having one blade wider than the other) or a 3-wire grounding type plug, a plug having a third (grounding) pin. The 2-wire polarized plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug still fails to fit, contact your electrician to replace your outlet. Do not defeat the safety purpose of the polarized plug.

12. **Power-Cord Protection** : Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them. This applies especially to cords of plugs and convenience receptacles, at the point where they exit from the unit.

13. **Lightning** : For added protection of this unit during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage of the unit from lightning and power-line surges.

14. **Power Lines** : An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

15. **Overloading** : Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

16. **Objects and Liquids :** Never push objects of any kind into the unit as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquids of any kind onto the unit. Should a spill occur, unplug unit and have it checked by a technician before using.

17. **Servicing** : Do not attempt to service this unit yourself as opening or removing covers may expose you to dangerous voltage or other hazards.
Refer all servicing to qualified service person.

18. **Damage Requiring Service** : Unplug this unit from the wall outlet and refer servicing to qualified service personnel under the following conditions :

a. When the power-supply cord or plug is damaged.
b. If any liquid has been spilled into, or objects have fallen in the unit.
c. If the unit has been exposed to rain or water.
d. If the unit does not operate normally by following the operating instruction, adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the unit to its normal operation.

WARNING ;
Lithium battery - Danger of explosion if incorrectly replaced. Must only be replaced by a battery of same make and type. Used batteries shall be returned to the supplier.

e. If the unit has been dropped or the cabinet has been damaged.
f. When the unit exhibits a distinct change in performance, this indicates a need for service.

19. **Replacement Parts** : When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.

20. **Safety Check** : Upon completion of any service or repairs to this unit, the safety check procedure should be performed.

IMPORTANT SAFETY NOTICE
There are special components in this equipment which are important for safety. These parts are marked by ⚠ in the schematic diagram, exploded views and replacement parts list. It is essential that these critical parts should be replaced with manufacturer's specified parts owing to shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

2. SPECIFICATIONS

Design and specifications are subject to change without notice.

Operation	Description
Format	Standard VHS PAL/SECAM
Heads	Video : SV-30K/40K/SVR-30D/40D - 2 Rotary heads SV-70K/80K/SVR-70D/80D - Double Azimuth 4 Rotary heads Audio/Control : 1 Stationary head Erase : 1 Full track erase head
Colour System	PAL/SECAM/MESECAM/NTSC PB ON PAL TV
Television System	Standard B/G, D/K
Video Recording System	Luminance : FM Azimuth Recording Colour : PAL/MESECAM - Down-converted subcarrier phase shifted direct recording SECAM - 1/4 counted down subcarrier direct recording
Tape Width	12.65MM (1/2 inch)
Tape Speed	SP : 23.39 mm/sec, LP : 11.69 mm/sec
Recording/Playback Time	SP : 3 Hours (E-180 Tape), LP : 6 Hours (E-180 Tape)
FF/REW Time	FF : Less than 210 sec (E-180 Tape), REW : Less than 150 sec (E-180 Tape)
Receiving Channel	VHF LOW : E2 - E4, X, Y, Z, Z+1, Z+2, S1 - S10, VHF HIGH : E5 - E12, S11 - S20, UHF : 21 - 69
RF Outgoing Channel	CH 38 (Variable CH30-39)
Video	
Input Output	0.5 to 2.0Vp-p; 75 ohm unbalanced 1.0 ± 0.1Vp-p; 75 ohm unbalanced
Audio	
Input Output	- 8 dBm, 50 Kilohm unbalanced - 4 ± 3 dBm, 1 Kilohm unbalanced
Power requirement	100 - 240V - AUTOMATIC 50/60Hz
Power consumption	Approx. 20 watts
Operation temperature	41° F - 104° F (5° C - 40° C)
Operation humidity	10% - 75%
Weight and dimensions	4.4Kg - 398(W) X 87.5(H) X 314(D) mm (without LEG)

* Comparing Chart

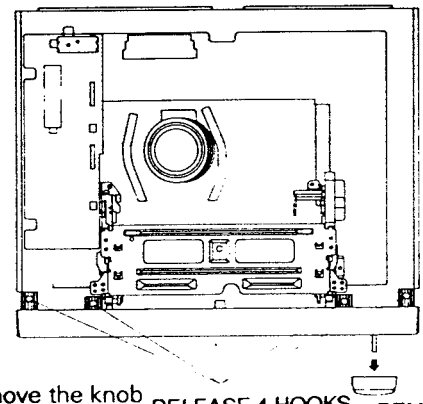
MODELS / FEATURES	SV-30K	SVR-30D	SV-40K	SVR-40D	SV-70K	SVR-70D	SV-80K	SVR-80D
Heads	2 H'd	2 H'd	2 H'd	2 H'd	2 H'd	2 H'd	2 H'd	2 H'd
Speed	SP	SP	SP	SP	SP/LP	SP/LP	SP/LP	SP/LP
Shuttle	X	X	O	O	X	X	O	O

3. DISASSEMBLY

3-1. Instrument & PCB Disassembly

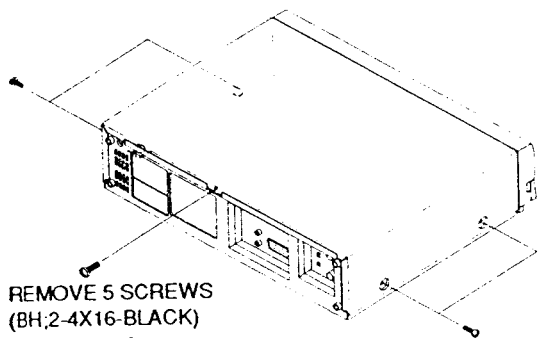
Please dismantle in the order shown.
Reassemble in reverse order.

3-1-3. Front Panel Removal

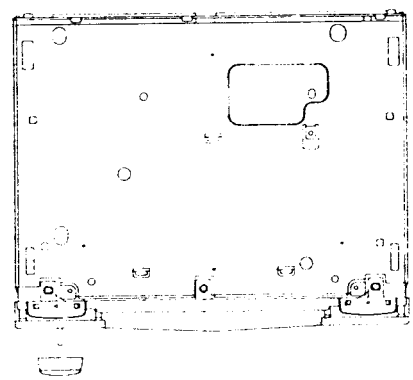


- First remove the knob -shuttle and release four(4) hooks.

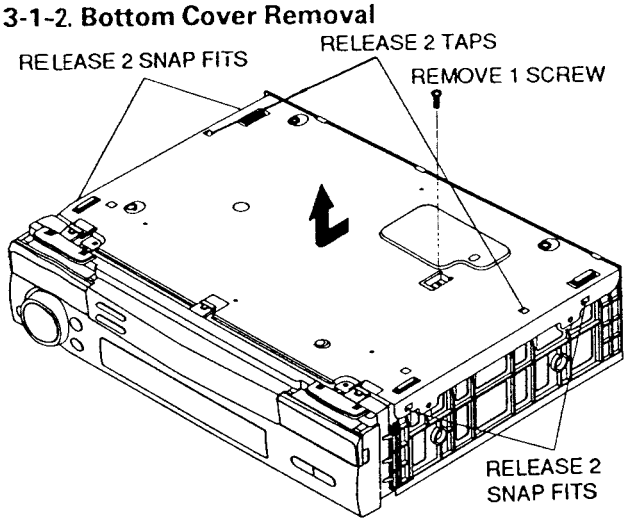
3-1-1. Top Cabinet Removal



- Remove five(5) screws from the top cabinet.
- Carefully lift the back of the top cabinet and slide it to the rear to remove.

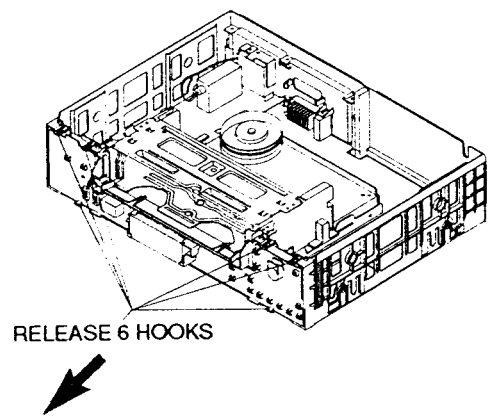


3-1-2. Bottom Cover Removal



- Remove one(1) screw and lift up the bottom cover in the direction of arrow.

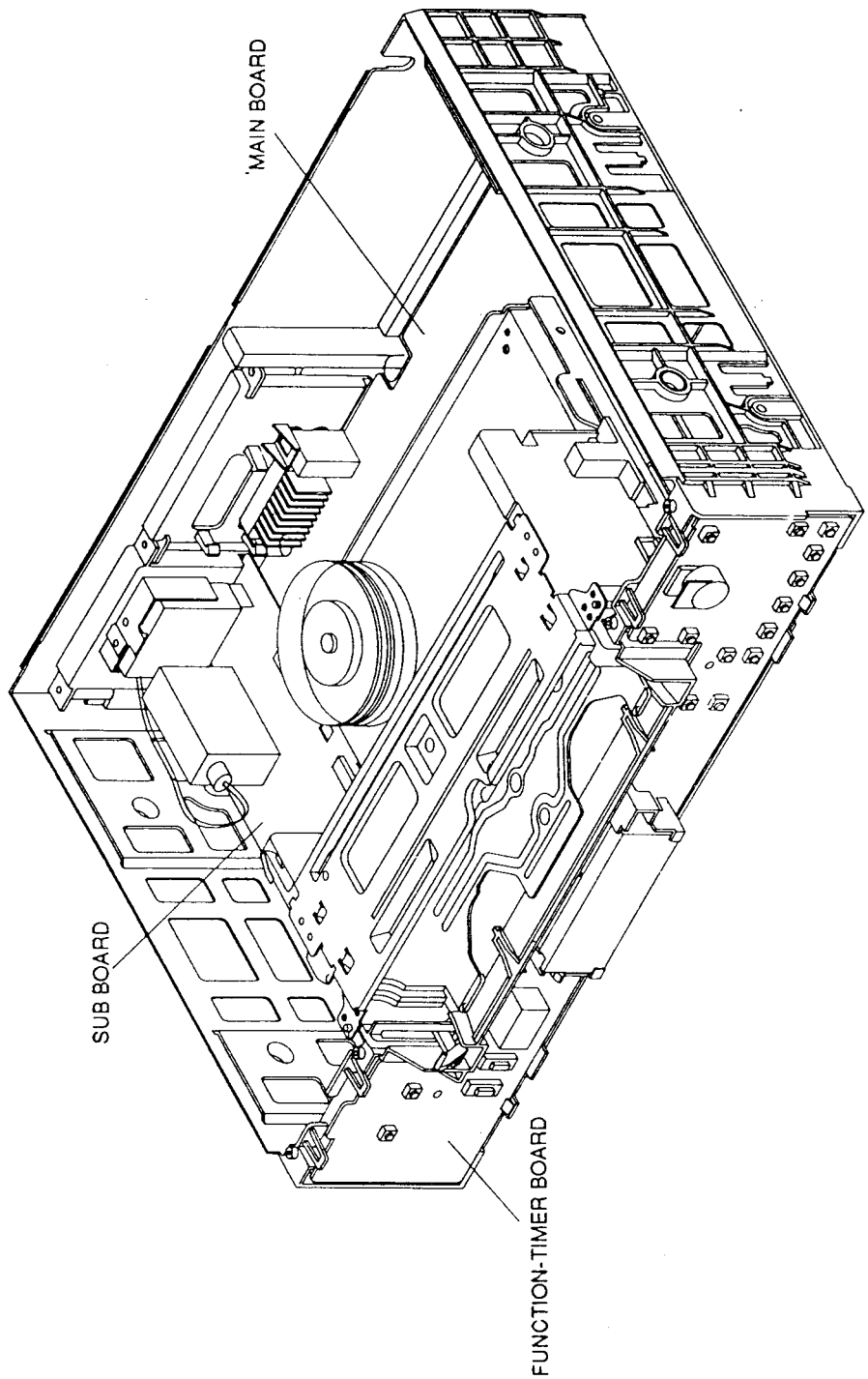
3-1-4. Function-Timer PCB Removal



- Release six(6) hooks and then pull the Function-Timer PCB in the direction of arrow.

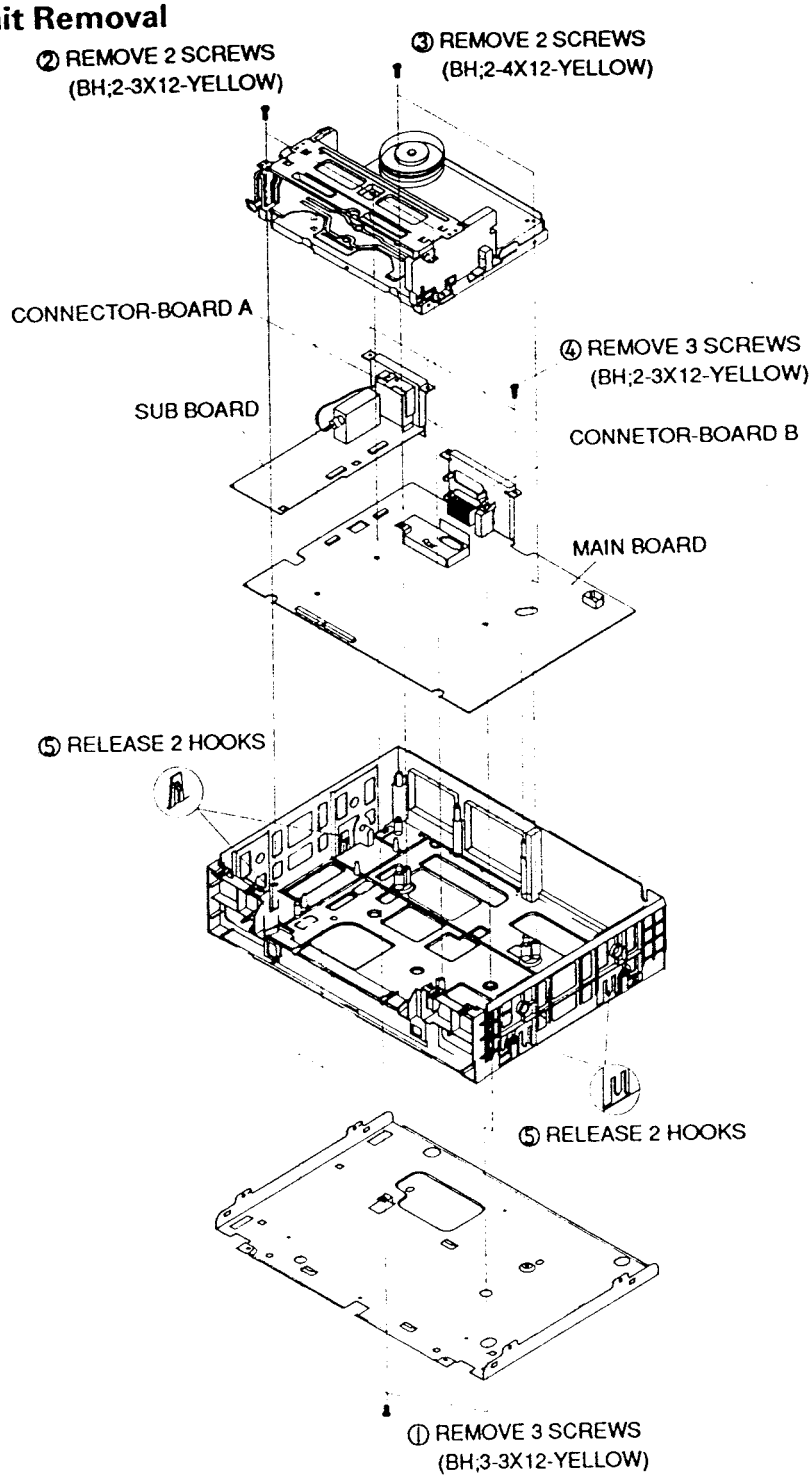
NOTE : Take extreme care not to damage the PCB when removing it.

3-2. Circuit Boards Location



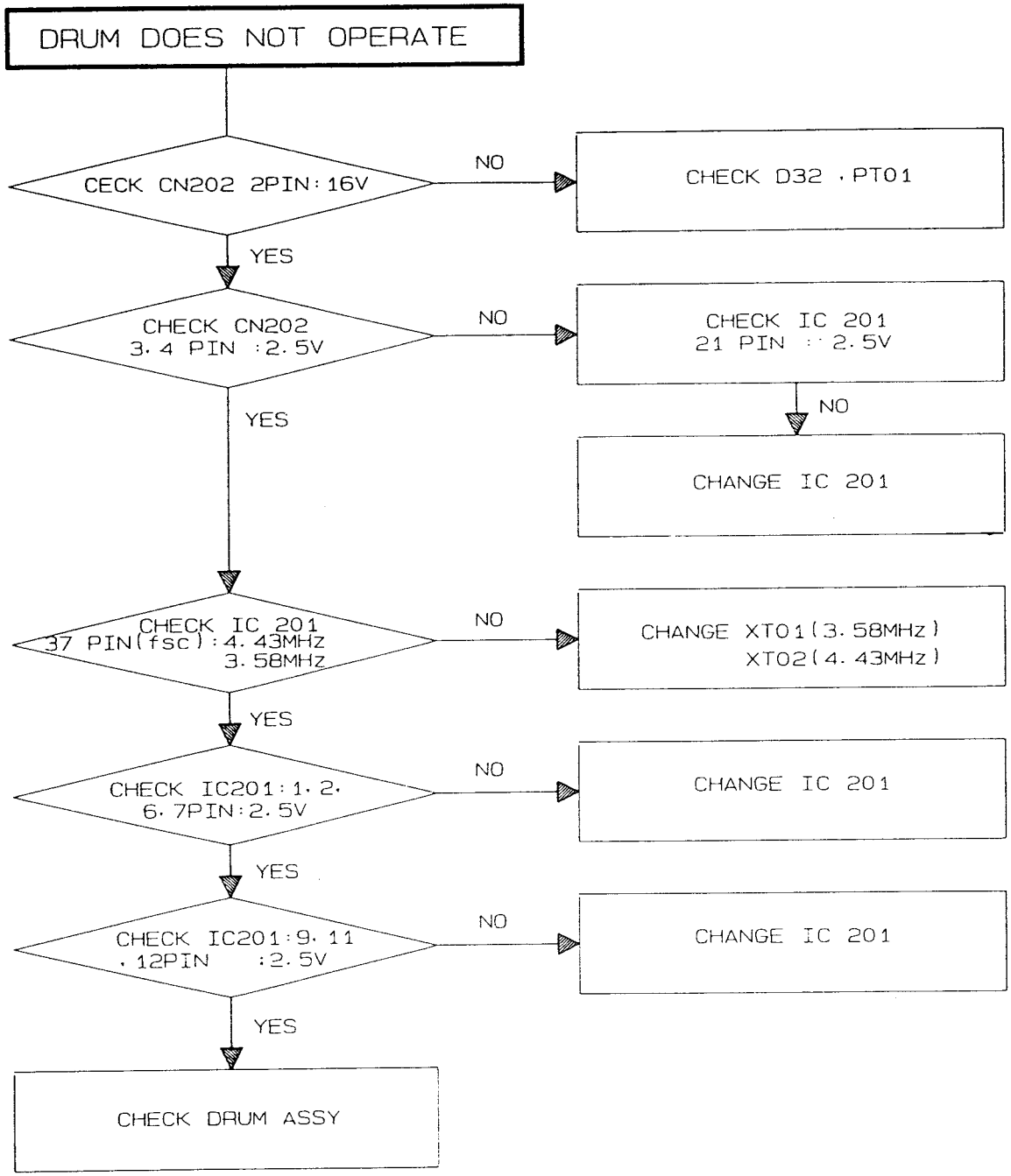
NOTE : 1. When removing chassis, take extreme care not to damage the main PCB front.
2. When reinstalling the deck on the main PCB, take extreme care not to damage the sensor.

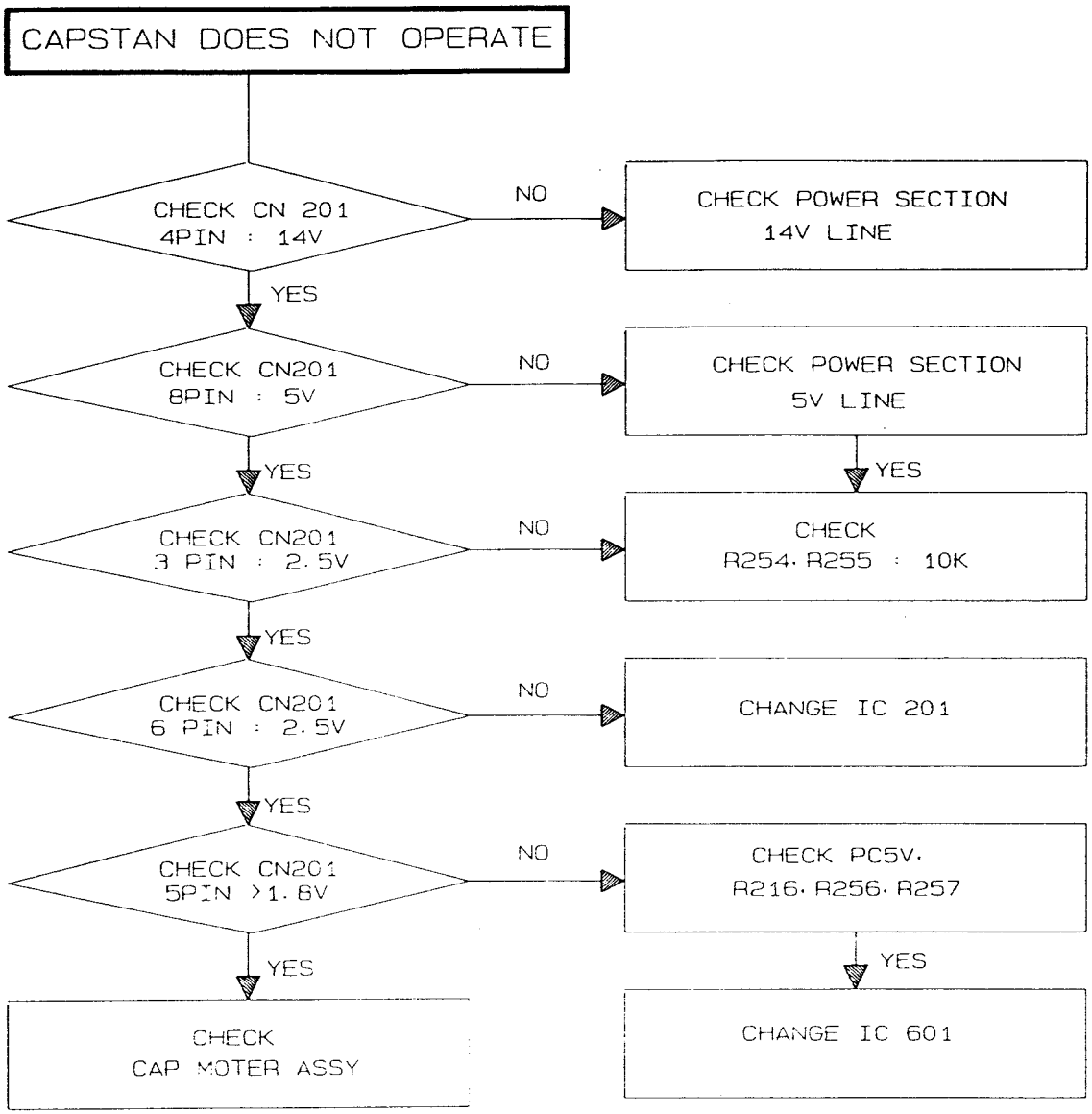
3-3. Chassis Unit Removal

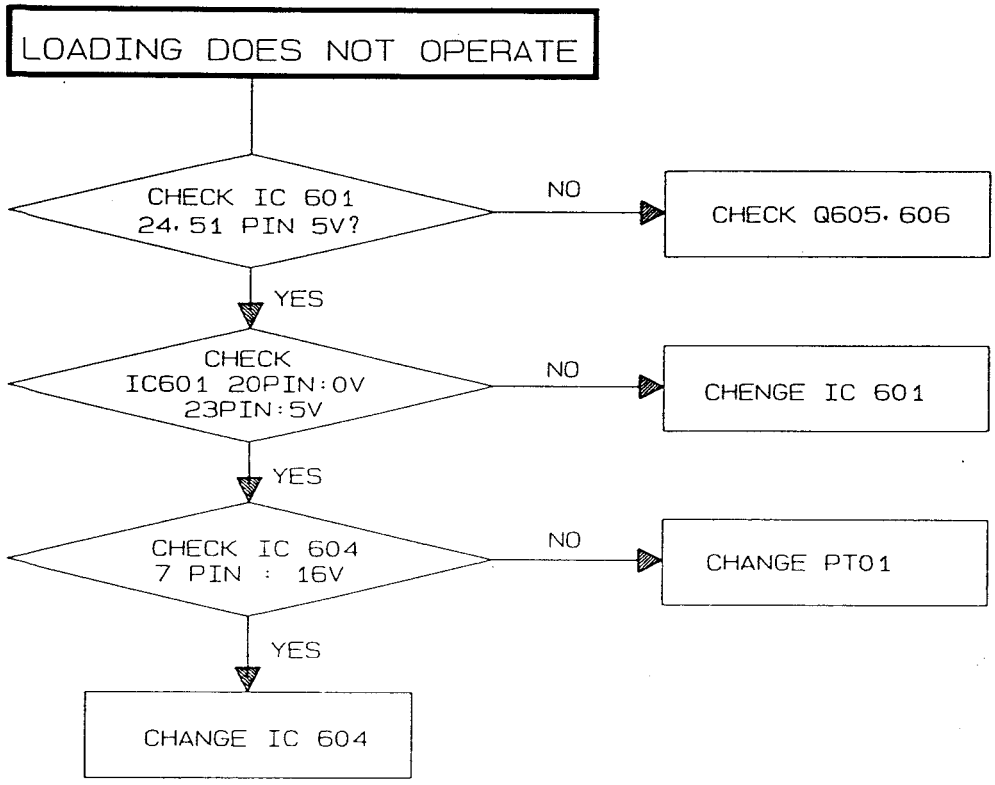


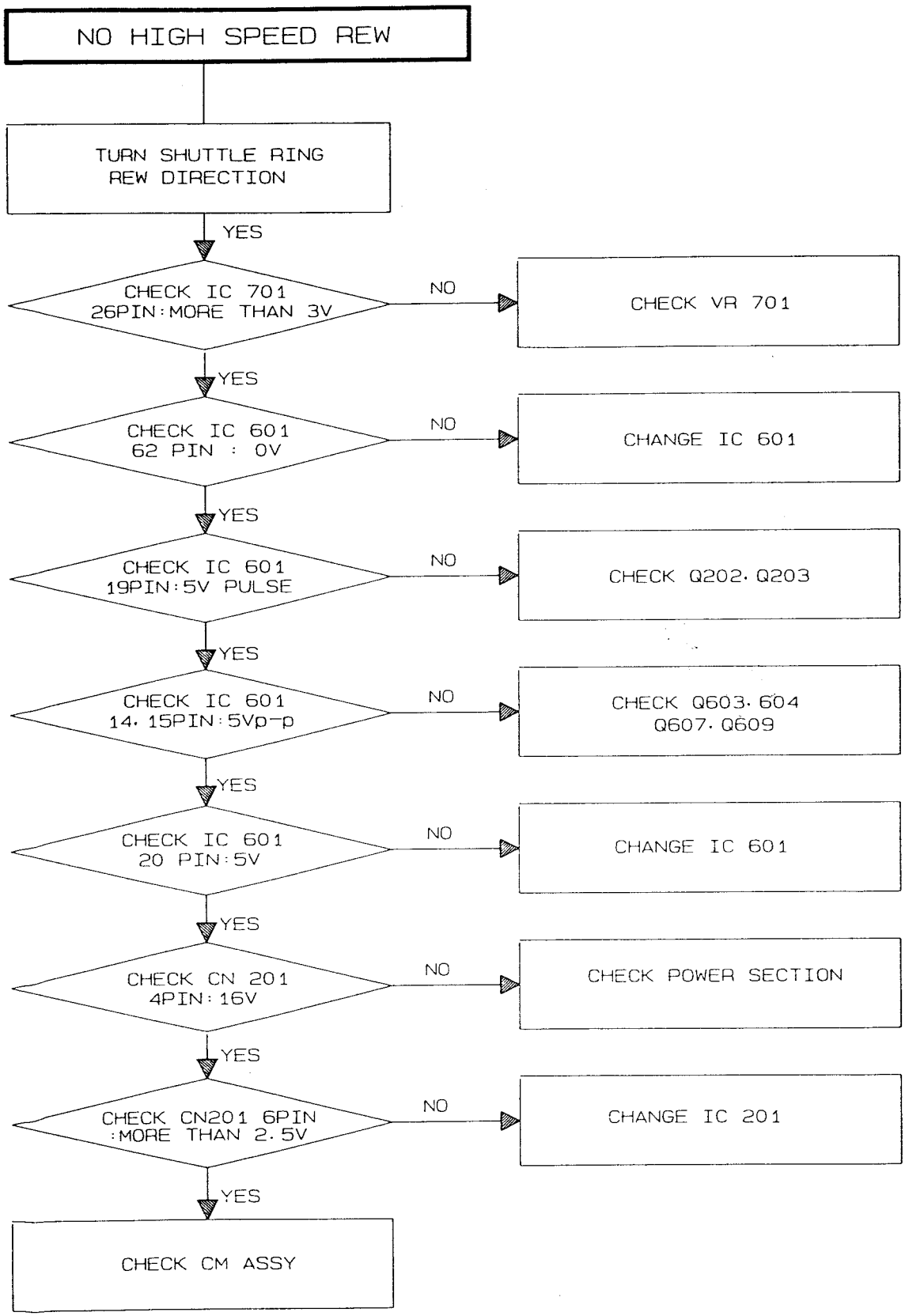
1. Remove three(3) screws ① holding the bottom cover.
2. Remove two(2) screws ② holding the housing & frame.
3. Remove two(2) screws ③ holding the deck & frame.
4. Lift up the deck ass'y.
5. Remove three(3) screws ④ holding the connector board and lift up the main PCB by releasing two(2) hooks ⑤.

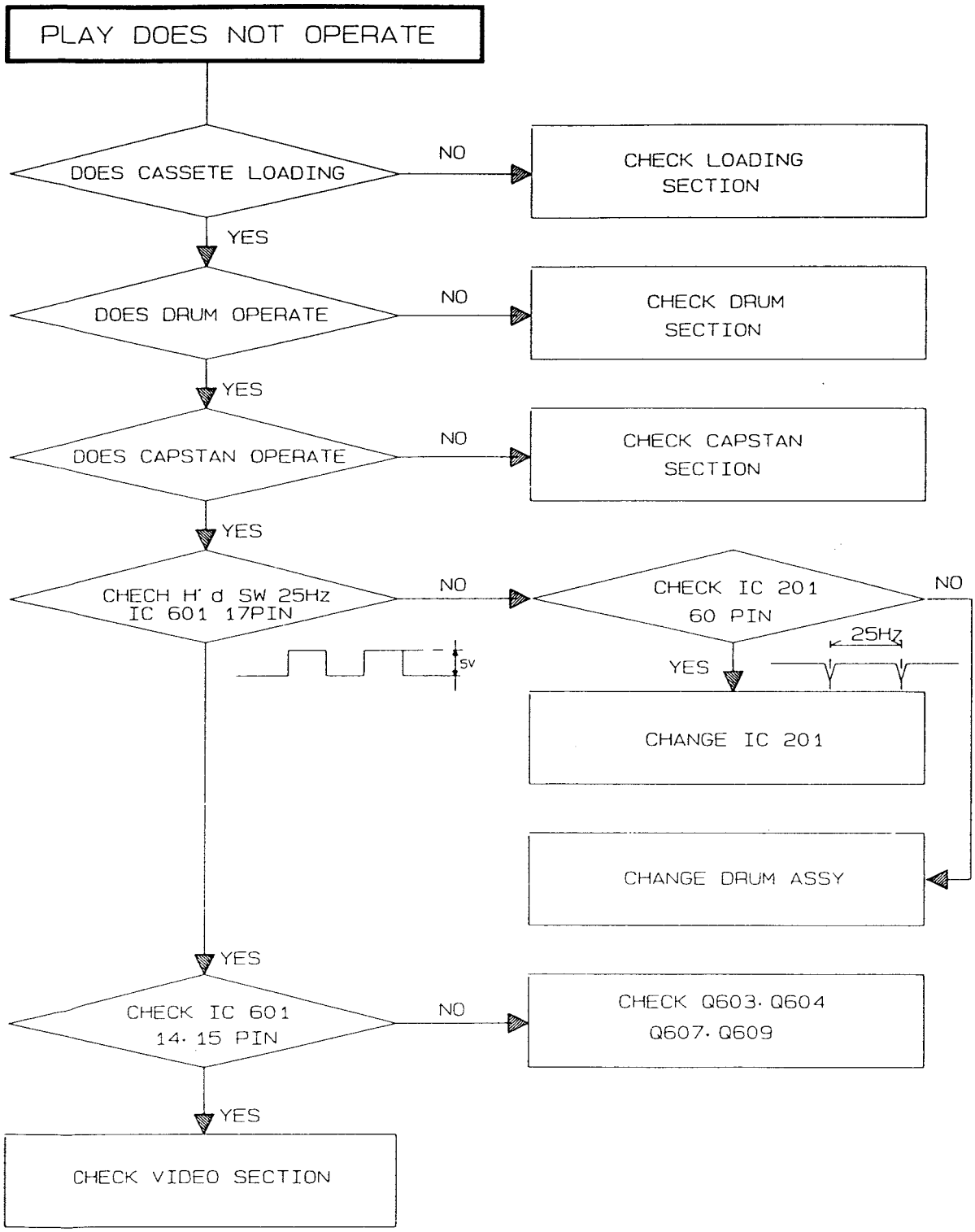
4. TROUBLESHOOTING

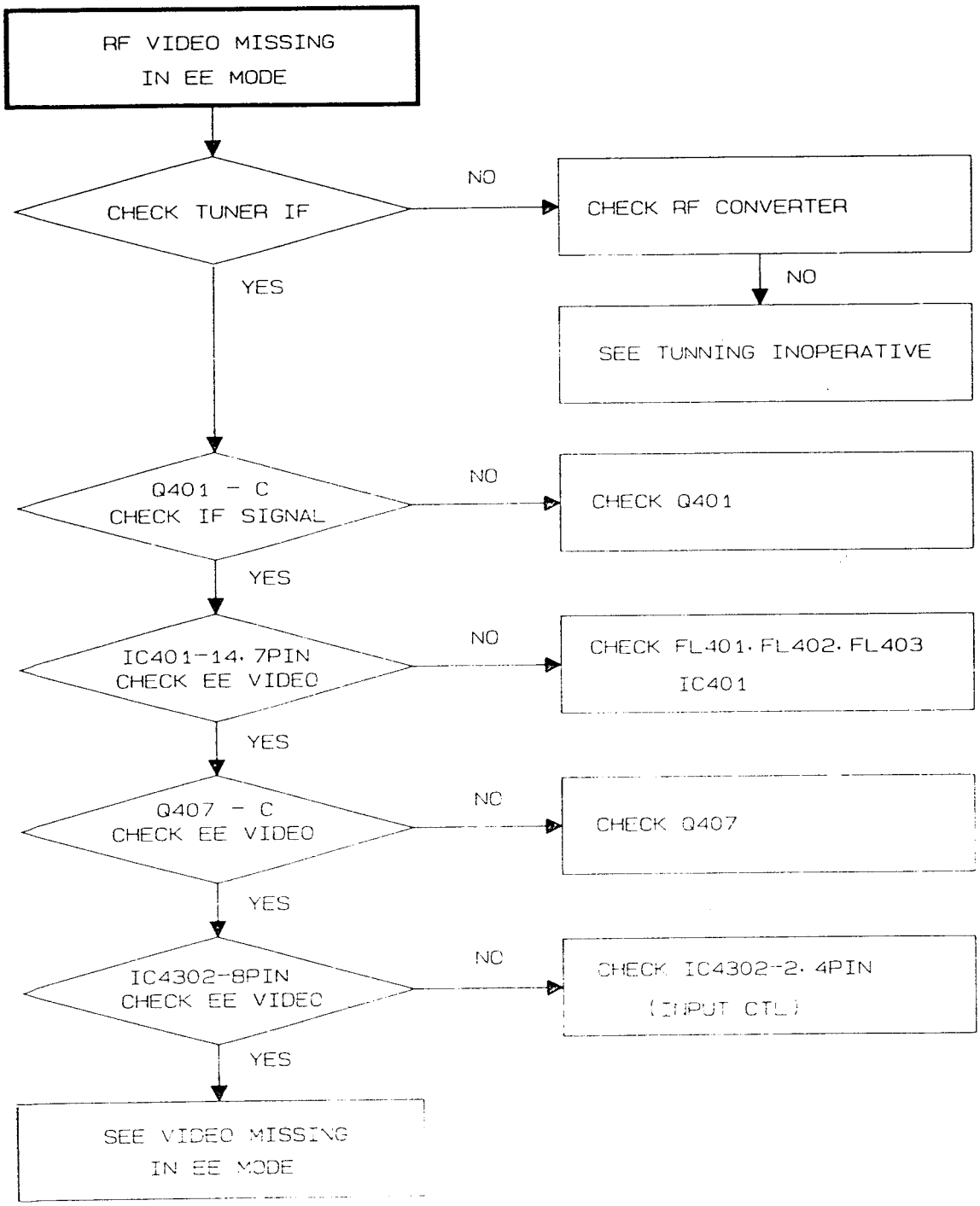


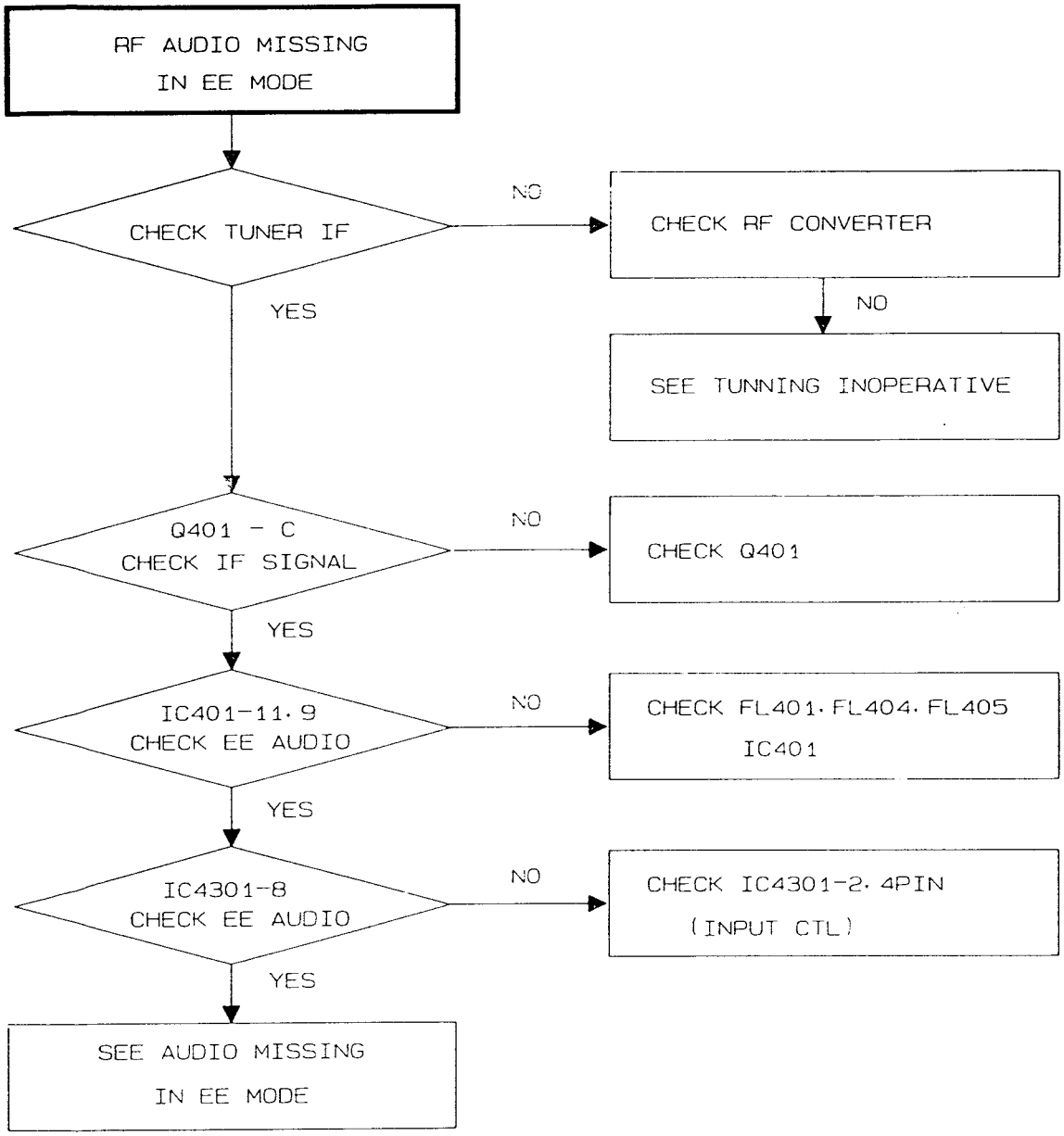

CAPSTAN DOES NOT OPERATE
CHECK CN 201
4PIN : 14V
NO
CHECK POWER SECTION
14V LINE
YES
CHECK CN201
8PIN : 5V
NO
CHECK POWER SECTION
5V LINE
YES
YES
CHECK CN201
3 PIN : 2.5V
NO
CHECK
R254. R255 : 10K
YES
CHECK CN201
6 PIN : 2.5V
NO
CHANGE IC 201
YES
CHECK CN201
5PIN >1.6V
NO
CHECK PC5V.
R216. R256. R257
YES
YES
CHECK
CAP MOTER ASSY
CHANGE IC 601

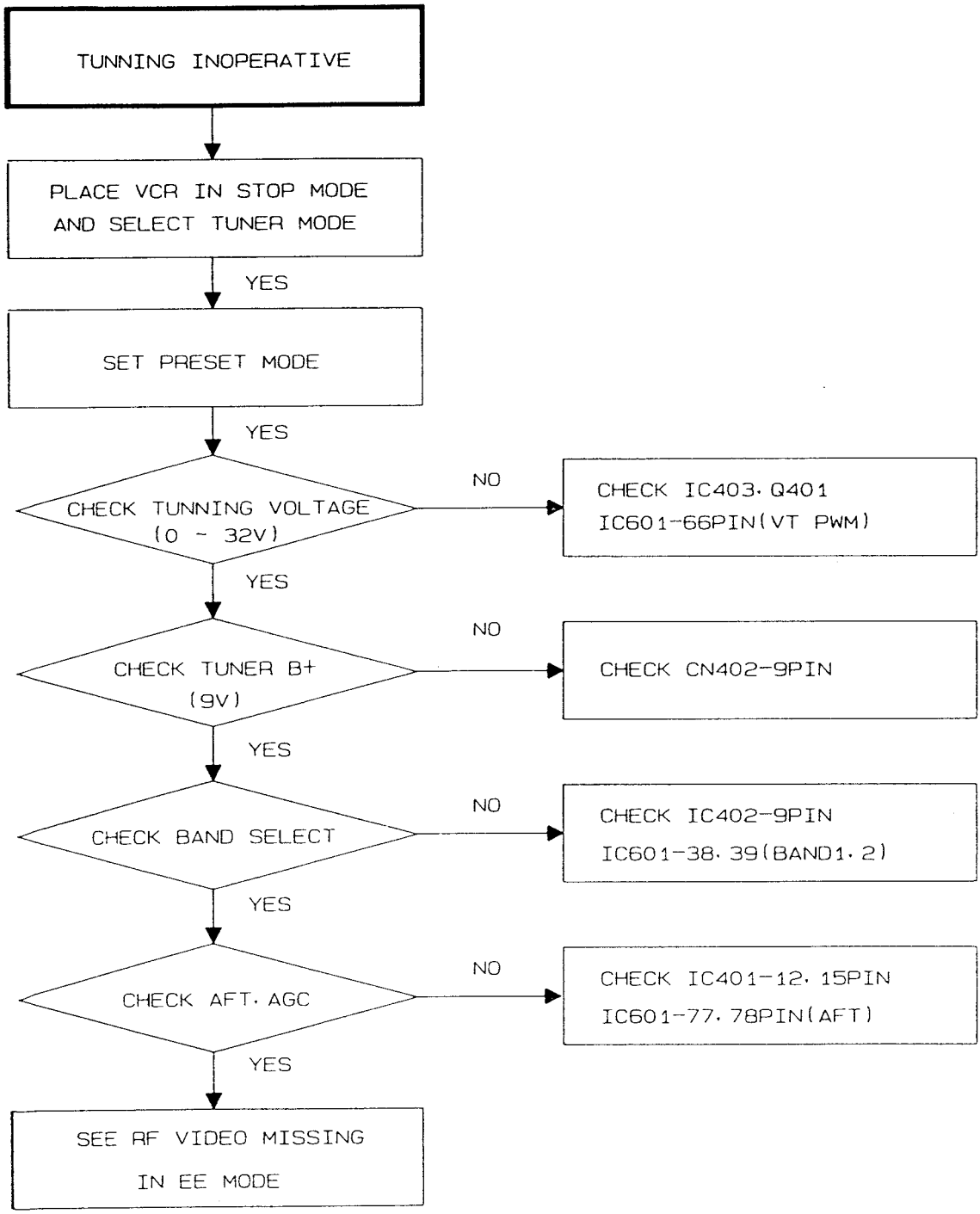

LOADING DOES NOT OPERATE
CHECK IC 601
24. 51 PIN 5V?
NO
CHECK Q605. 606
YES
CHECK
IC601 20PIN:0V
23PIN:5V
NO
CHENGE IC 601
YES
CHECK IC 604
7 PIN : 16V
NO
CHANGE PT01
YES
CHANGE IC 604

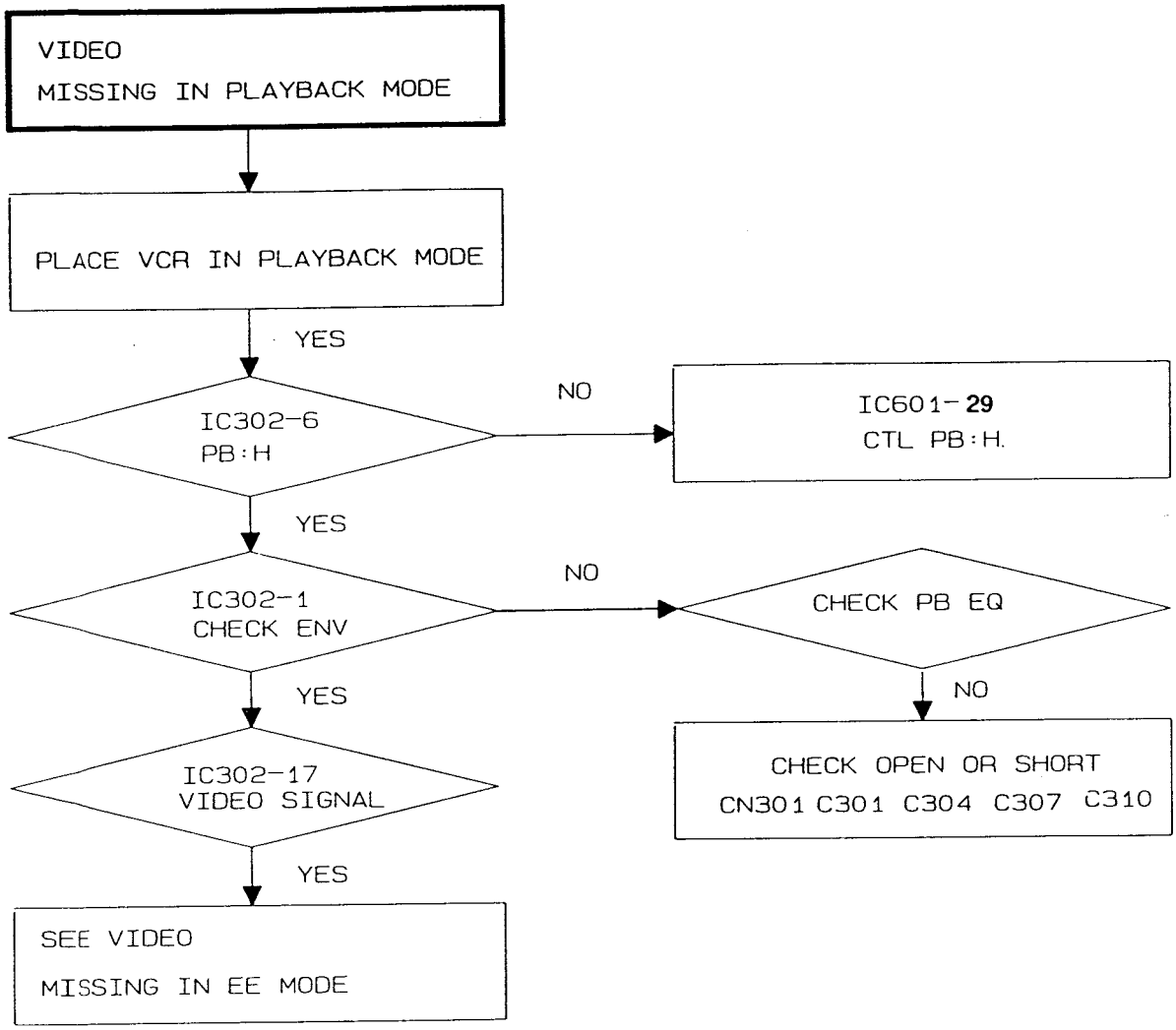

NO HIGH SPEED REW
TURN SHUTTLE RING
REW DIRECTION
YES
CHECK IC 701
26PIN:MORE THAN 3V
NO
CHECK VR 701
YES
CHECK IC 601
62 PIN : 0V
NO
CHANGE IC 601
YES
CHECK IC 601
19PIN:5V PULSE
NO
CHECK Q202. Q203
YES
CHECK IC 601
14. 15PIN:5Vp-p
NO
CHECK Q603. 604
Q607. Q609
YES
CHECK IC 601
20 PIN:5V
NO
CHANGE IC 601
YES
CHECK CN 201
4PIN:16V
NO
CHECK POWER SECTION
YES
CHECK CN201 6PIN
:MORE THAN 2.5V
NO
CHANGE IC 201
YES
CHECK CM ASSY

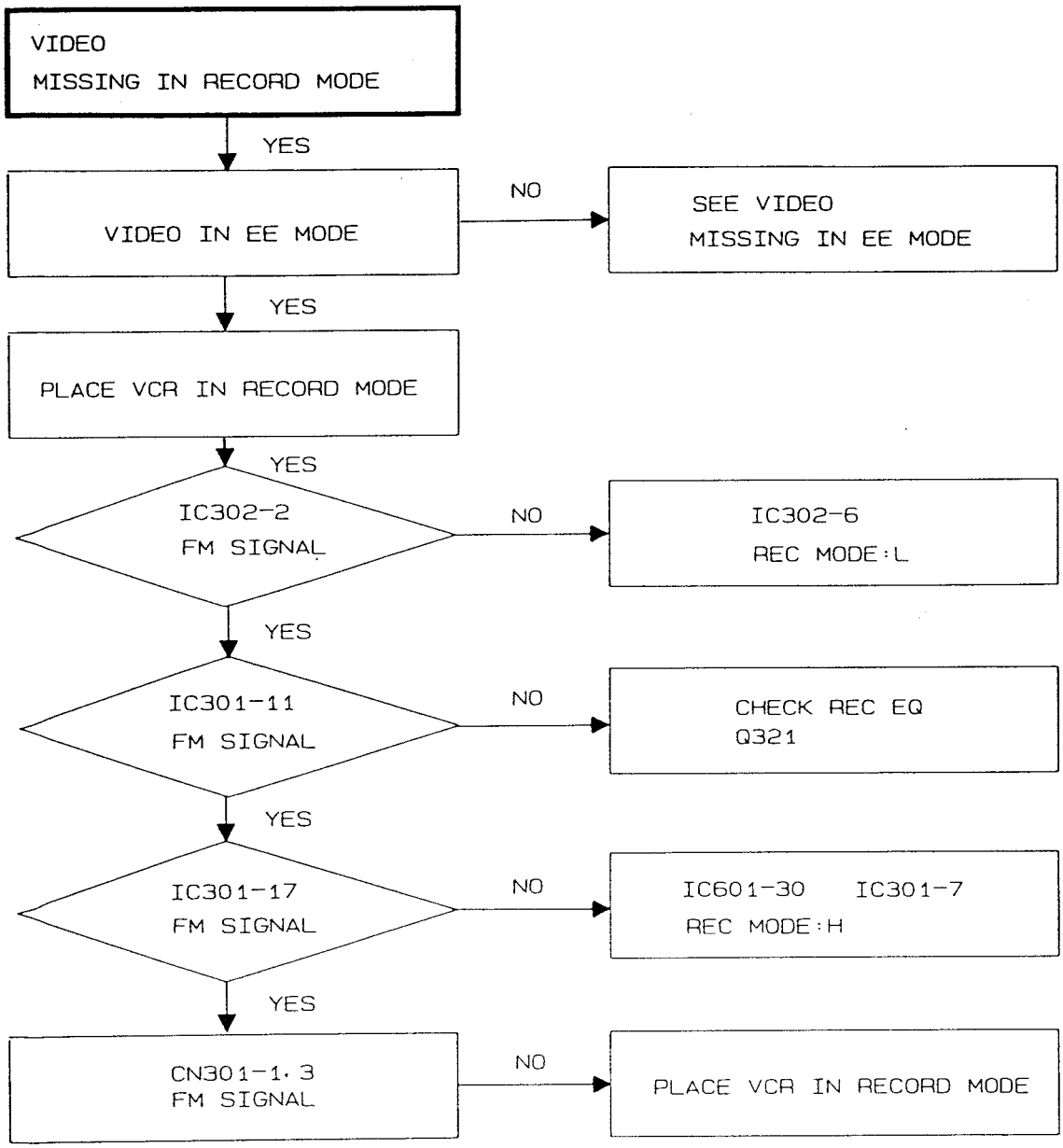

PLAY DOES NOT OPERATE
DOES CASSETE LOADING
NO
CHECK LOADING SECTION
YES
DOES DRUM OPERATE
NO
CHECK DRUM SECTION
YES
DOES CAPSTAN OPERATE
NO
CHECK CAPSTAN SECTION
YES
CHECH H' d SW 25Hz IC 601 17PIN
NO
5V
CHECK IC 201 60 PIN
NO
25Hz
YES
CHANGE IC 201
CHANGE DRUM ASSY
YES
CHECK IC 601 14. 15 PIN
NO
CHECK Q603. Q604 Q607. Q609
YES
CHECK VIDEO SECTION

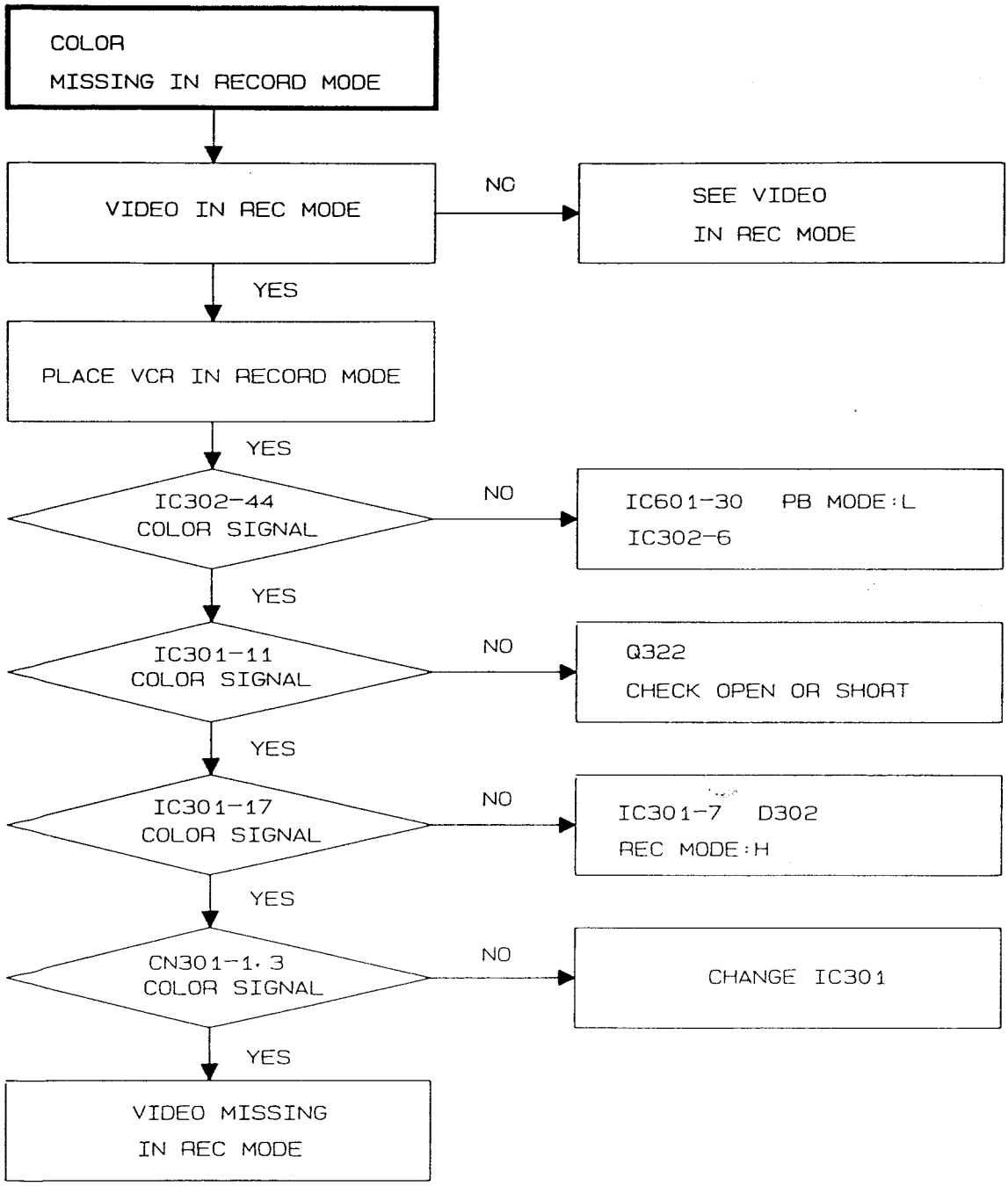

RF VIDEO MISSING
IN EE MODE
CHECK TUNER IF
NO
CHECK RF CONVERTER
NO
SEE TUNNING INOPERATIVE
YES
Q401 - C
CHECK IF SIGNAL
NO
CHECK Q401
YES
IC401-14. 7PIN
CHECK EE VIDEO
NO
CHECK FL401. FL402. FL403
IC401
YES
Q407 - C
CHECK EE VIDEO
NO
CHECK Q407
YES
IC4302-8PIN
CHECK EE VIDEO
NO
CHECK IC4302-2. 4PIN
(INPUT CTL)
YES
SEE VIDEO MISSING
IN EE MODE

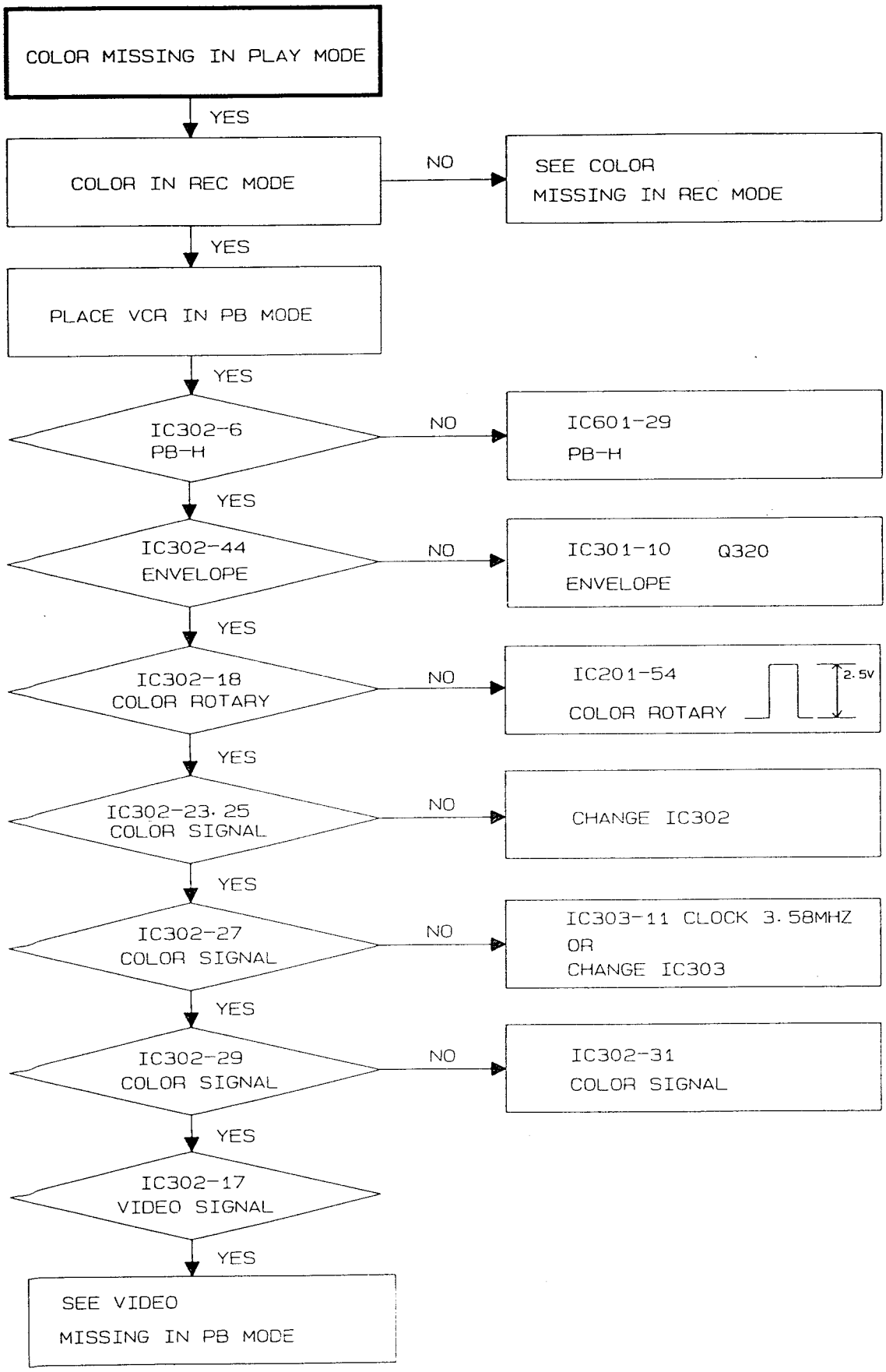

RF AUDIO MISSING
IN EE MODE
CHECK TUNER IF
NO
CHECK RF CONVERTER
YES
NO
SEE TUNNING INOPERATIVE
Q401 - C
CHECK IF SIGNAL
NO
CHECK Q401
YES
IC401-11.9
CHECK EE AUDIO
NO
CHECK FL401.FL404.FL405
IC401
YES
IC4301-8
CHECK EE AUDIO
NO
CHECK IC4301-2.4PIN
(INPUT CTL)
YES
SEE AUDIO MISSING
IN EE MODE

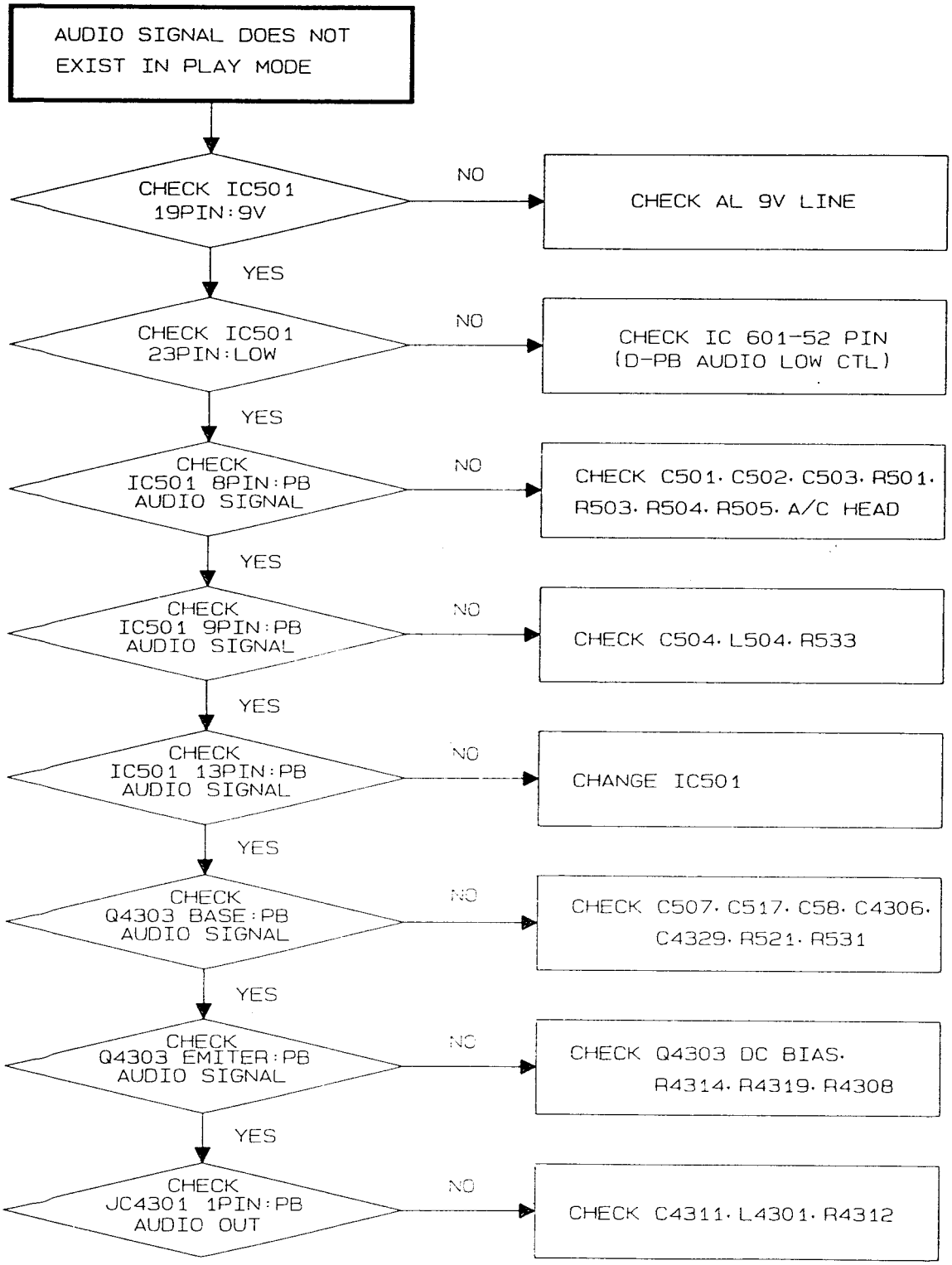

TUNNING INOPERATIVE
PLACE VCR IN STOP MODE AND SELECT TUNER MODE
YES
SET PRESET MODE
YES
CHECK TUNNING VOLTAGE (0 ~ 32V)
NO
CHECK IC403, Q401
IC601-66PIN(VT PWM)
YES
CHECK TUNER B+ (9V)
NO
CHECK CN402-9PIN
YES
CHECK BAND SELECT
NO
CHECK IC402-9PIN
IC601-38, 39(BAND1, 2)
YES
CHECK AFT, AGC
NO
CHECK IC401-12, 15PIN
IC601-77, 78PIN(AFT)
YES
SEE RF VIDEO MISSING IN EE MODE

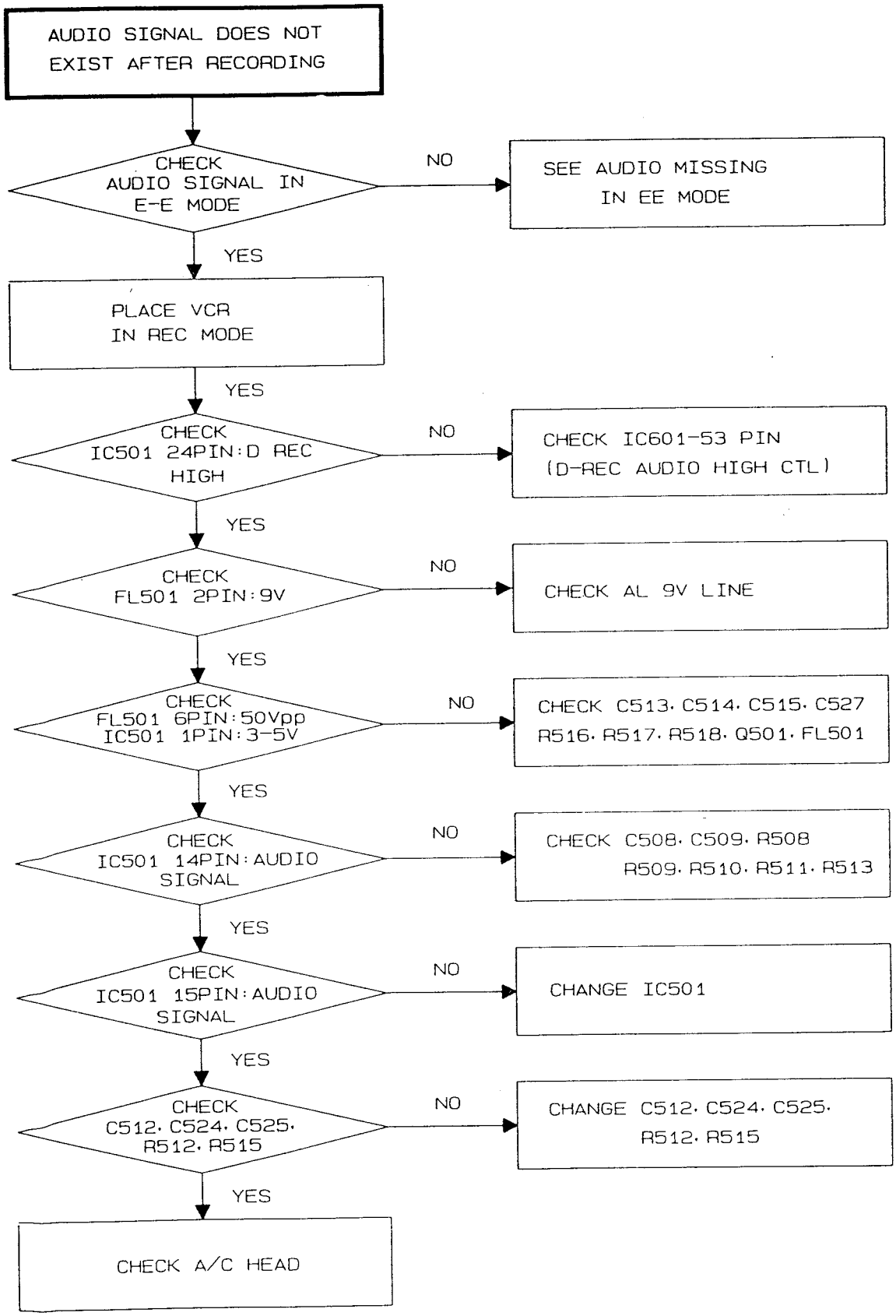

VIDEO
MISSING IN PLAYBACK MODE
PLACE VCR IN PLAYBACK MODE
YES
IC302-6
PB:H
NO
IC601-29
CTL PB:H.
YES
IC302-1
CHECK ENV
NO
CHECK PB EQ
YES
NO
IC302-17
VIDEO SIGNAL
CHECK OPEN OR SHORT
CN301 C301 C304 C307 C310
YES
SEE VIDEO
MISSING IN EE MODE


VIDEO
MISSING IN RECORD MODE
YES
VIDEO IN EE MODE
NO
SEE VIDEO
MISSING IN EE MODE
YES
PLACE VCR IN RECORD MODE
YES
IC302-2
FM SIGNAL
NO
IC302-6
REC MODE:L
YES
IC301-11
FM SIGNAL
NO
CHECK REC EQ
Q321
YES
IC301-17
FM SIGNAL
NO
IC601-30 IC301-7
REC MODE:H
YES
CN301-1,3
FM SIGNAL
NO
PLACE VCR IN RECORD MODE


COLOR
MISSING IN RECORD MODE
VIDEO IN REC MODE
NO
SEE VIDEO
IN REC MODE
YES
PLACE VCR IN RECORD MODE
YES
IC302-44
COLOR SIGNAL
NO
IC601-30 PB MODE:L
IC302-6
YES
IC301-11
COLOR SIGNAL
NO
Q322
CHECK OPEN OR SHORT
YES
IC301-17
COLOR SIGNAL
NO
IC301-7 D302
REC MODE:H
YES
CN301-1.3
COLOR SIGNAL
NO
CHANGE IC301
YES
VIDEO MISSING
IN REC MODE


COLOR MISSING IN PLAY MODE
YES
COLOR IN REC MODE
NO
SEE COLOR
MISSING IN REC MODE
YES
PLACE VCR IN PB MODE
YES
IC302-6
PB-H
NO
IC601-29
PB-H
YES
IC302-44
ENVELOPE
NO
IC301-10 Q320
ENVELOPE
YES
IC302-18
COLOR ROTARY
NO
IC201-54
COLOR ROTARY
2.5V
YES
IC302-23. 25
COLOR SIGNAL
NO
CHANGE IC302
YES
IC302-27
COLOR SIGNAL
NO
IC303-11 CLOCK 3. 58MHZ
OR
CHANGE IC303
YES
IC302-29
COLOR SIGNAL
NO
IC302-31
COLOR SIGNAL
YES
IC302-17
VIDEO SIGNAL
YES
SEE VIDEO
MISSING IN PB MODE


AUDIO SIGNAL DOES NOT EXIST IN PLAY MODE
CHECK IC501 19PIN:9V
NO
CHECK AL 9V LINE
YES
CHECK IC501 23PIN:LOW
NO
CHECK IC 601-52 PIN (D-PB AUDIO LOW CTL)
YES
CHECK IC501 8PIN:PB AUDIO SIGNAL
NO
CHECK C501. C502. C503. R501. R503. R504. R505. A/C HEAD
YES
CHECK IC501 9PIN:PB AUDIO SIGNAL
NO
CHECK C504. L504. R533
YES
CHECK IC501 13PIN:PB AUDIO SIGNAL
NO
CHANGE IC501
YES
CHECK Q4303 BASE:PB AUDIO SIGNAL
NO
CHECK C507. C517. C58. C4306. C4329. R521. R531
YES
CHECK Q4303 EMITER:PB AUDIO SIGNAL
NO
CHECK Q4303 DC BIAS. R4314. R4319. R4308
YES
CHECK JC4301 1PIN:PB AUDIO OUT
NO
CHECK C4311. L4301. R4312


AUDIO SIGNAL DOES NOT EXIST AFTER RECORDING
CHECK AUDIO SIGNAL IN E-E MODE
NO
SEE AUDIO MISSING IN EE MODE
YES
PLACE VCR IN REC MODE
YES
CHECK IC501 24PIN:D REC HIGH
NO
CHECK IC601-53 PIN (D-REC AUDIO HIGH CTL)
YES
CHECK FL501 2PIN:9V
NO
CHECK AL 9V LINE
YES
CHECK FL501 6PIN:50Vpp IC501 1PIN:3-5V
NO
CHECK C513. C514. C515. C527 R516. R517. R518. Q501. FL501
YES
CHECK IC501 14PIN:AUDIO SIGNAL
NO
CHECK C508. C509. R508 R509. R510. R511. R513
YES
CHECK IC501 15PIN:AUDIO SIGNAL
NO
CHANGE IC501
YES
CHECK C512. C524. C525. R512. R515
NO
CHANGE C512. C524. C525. R512. R515
YES
CHECK A/C HEAD

5. ELECTRICAL REPLACEMENT PARTS LIST

Loca.No.	Part No	Description & Specification	Remark
601		ASSY MAIN	
	69557-302-233	SV-30K/SVR-30D	
	69557-302-223	SV-40K/SVR-40D	
	69557-302-232	SV-70K/SVR-70D	
	69557-302-226	SV-80K/SVR-80D	
SMPS PARTS			
C01	B1102-0266	C-FILM;CQS 92 2 275V T 104-N -25/85 ARCOTRONICS	
C02	61419-001-001	C-FILM;KNB1530 0.1UF/AC250V	
C05	A1100-0450	C-CERAMIC;CK 45 B 400V 222-K CK45B500V222K	
C06	A1100-0580	C-CERAMIC;CK 45 B 400V T 332-M SCF2G332M16BS	
C10	A1104-0583	C-ELEC;CE 62 -25/85 400V 820-M HR SMG400VNSN82M	
C11	A1102-0219	C-FILM;CQ 922 P 630V T 103-K SC-ARD135	
C12	61419-001-006	C-CERAMIC;CKB3A 101K 06BS 1KV	
C13	B1102-0260	C-FILM;CQ 922 M 50V T 102-J ECQB1H102JF3	
C14	B1102-0125	C-FILM;CQ 982 P 50V T 104-J 40/85 ECQV1H104JZ3	
C15	61637-208-229	C-ELEC;CEAP 50V 2.2M SA (5X11)	
C16	B1102-0259	C-FILM;CQ 922 M 50V T 562-J ECQB1H562JF3	
C17	61637-208-220	C-ELEC;CEAP 50V 22M SA(6X11)	
C18	61507-121-511	C-POLYESTER;CQ921M TAPG 50V 223-J	
C30	61637-511-100	C-ELEC;CEAP 100V 10M SG(6.3X11)	
C31	A1104-0378	C-ELEC;CE 04 F 35V T 331-M STX/KME -40/105	
C32	A1104-0373	C-ELEC;CE 04 F 25V T 331-M STX/KME -40/105	
C33	A1104-0373	C-ELEC;CE 04 F 25V T 331-M STX/KME -40/105	
C34	61637-504-102	C-ELEC;CEAP 16V 1000M SG(10X20)	
C35	A1104-0480	C-ELEC;CE 04 F 16V T 471-M STX/KME -40/105	
C36	61637-508-470	C-ELEC;CEAP 50V 47M SG(6.3X11)	
C37	A1104-0383	C-ELEC;CE 04 F 10V T 101-M STX/KME -40/105	
C38	B1102-0125	C-FILM;CQ 982 P 50V T 104-J 40/85 ECQV1H104JZ3	
C39	61637-208-479	C-ELEC;CEAP 50V 4.7M SA(5X11)	
C40	61407-117-101	C-CERAMIC.AXIAL;UP050F 104Z	
C618	61637-204-100	C-ELEC;CEAP 16V 10M SA(5X11)	
C619	61637-508-470	C-ELEC;CEAP 50V 47M SG(6.3X11)	
C621	61407-117-104	C-CERAMIC.AXIAL;CAX Y TAPG 16V 103N-T	
C622	61637-206-100	C-ELEC;CEAP 35V 10M SA(5X11)	
CN01	A6010-0459	CONNECTOR-WAFER;YW396-02V WHT	
D01	B4104-0094	DIODE-RECT;ERA15-06 600V 1A T	⚠
D02	B4104-0094	DIODE-RECT;ERA15-06 600V 1A T	⚠
D03	B4104-0094	DIODE-RECT;ERA15-06 600V 1A T	⚠
D04	B4104-0094	DIODE-RECT;ERA15-06 600V 1A T	⚠
D10	B4102-0006	DIODE-FR;EG01C 3.3V 500MA 0.1US	
D103	B4104-0046	DIODE-RECT;1N4002GP 100V 1A	
D104	B4104-0046	DIODE-RECT;1N4002GP 100V 1A	
D105	B4104-0046	DIODE-RECT;1N4002GP 100V 1A	
D11	62169-406-482	DIODE;1N4148 SAMSUNG	
D12	B4102-0047	DIODE-FR;ERA18-04V1 400V 800MA 0.4US T	
D203	62169-403-829	DIODE-ZENER;MTZ 30D	
D30	B4102-0047	DIODE-FR;ERA18-04V1 400V 800MA 0.4US T	
D31	B4102-0047	DIODE-FR;ERA18-04V1 400V 800MA 0.4US T	
D32	B4102-0050	DIODE-FR;D3L20U 200V 2.5A 35NS STICK	
D33	B4102-0050	DIODE-FR;D3L20U 200V 2.5A 35NS STICK	
D34	B4102-0047	DIODE-FR;ERA18-04V1 400V 800MA 0.4US T	
D35	B4102-0047	DIODE-FR;ERA18-04V1 400V 800MA 0.4US T	
D39	62169-406-482	DIODE;1N4148 SAMSUNG	
F01	B3065-0157	FUSE;FST 250V 1.6A 20MM SEMKO S505 C	⚠
IC01	A4008-1122	IC;KA7552 DIP	⚠
IC02	B4161-0032	PHOTO-COUPLER;PC121F ST DIP	⚠
IC03	A4008-0757	IC;KA431Z TO-92 TAPING	⚠
IC101	62109-201-281	IC;KA7809	
L01	A1151-0023	COIL-LINE FILTER;SHL030 25MH 1.5 STICK	
L02	A1130-0077	COIL-CHOKE;10UH-J RA Q80 F150KHZ	
L11	A1160-0016	INDUCTOR;70UH-M RT BFS3565R2F	
L30	A1160-0016	INDUCTOR;70UH-M RT BFS3565R2F	

Loca.No	Part No	Description & Specification	Remark
L31	A1130-0077	COIL-CHOKE;10UH-J RA Q80 F150KHZ	
L32	A1130-0077	COIL-CHOKE;10UH-J RA Q80 F150KHZ	
L33	A1160-0016	INDUCTOR;70UH-M RT BFS3565R2F	
PT01	A1206-0072	TRANS-SWITCHING;P:85-276V S:5/38V DEMKO ST	⚠
Q01	B4054-0052	FET;2SK903M-F155 40W 3A 800V MOS/N-CHANNEL ST	⚠
Q03	62147-401-835	TRANSISTOR;KSA 928A-Y TAPG	
Q04	62137-701-013	TRANSISTOR;KSR 1004 TAPG	
Q05	62137-701-013	TRANSISTOR;KSR 1004 TAPG	
Q06	62147-101-950	TRANSISTOR;KSA 643-Y TAPG	
Q07	62137-302-441	TRANSISTOR;KSC 2328-Y TAPG	
Q08	62137-302-441	TRANSISTOR;KSC 2328-Y TAPG	
Q09	62137-302-441	TRANSISTOR;KSC 2328-Y TAPG	
Q10	62147-401-835	TRANSISTOR;KSA 928A-Y TAPG	
Q11	62137-701-012	TRANSISTOR;KSR 1003 TAPG	
R10	A1014-0053	R-CEMENT;RWC 2 R 2R7-K STICK	
R11	A1006-0793	R-METAL FILM;RM 1/4 P 623-J SFR25	
R12	A1006-0793	R-METAL FILM;RM 1/4 P 623-J SFR25	
R13	A1006-0809	R-METAL FILM;RM 1/4 T 333-J SFR25	
R14	A1006-0793	R-METAL FILM;RM 1/4 P 623-J SFR25	
R15	61048-177-151	R-CARBON;RD 1/8 T 151-J	
R16	61048-177-390	R-CARBON;RD 1/8 T 390-J	
R17	A1004-0198	R-METAL OXIDE;RS 2 T 333-J PR02-33K	
R18	A1004-0198	R-METAL OXIDE;RS 2 T 333-J PR02-33K	
R19	61048-177-104	R-CARBON;RD 1/8 T 104-J	
R20	61048-177-270	R-CARBON;RD 1/8 T 270-J	
R21	61048-177-151	R-CARBON;RD 1/8 T 151-J	
R22	61048-177-101	R-CARBON;RD 1/8 T 101 J	
R23	A1014-0055	R-CEMENT;RWC 2 R(S) R47-K STICK	
R24	A1000-0560	R-METAL FILM;RM 1/8 T 512-F	
R30	61048-177-391	R-CARBON;RD 1/8 T 391-J	
R31	61048-177-122	R-CARBON;RD 1/8 T 122-J	
R32	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R33	A1006-0592	R-METAL FILM;RM 1/8 T 302-F	
R34	A1006-0423	R-METAL FILM;RM 1/8 T 222-F	
R35	A1004-0227	R-METAL OXIDE;RS 2 R 101-J EG2SJ101E	
R36	61048-177-104	R-CARBON;RD 1/8 T 104-J	
R37	A1006-0812	R-METAL FILM;RM 1/4 T 392-J SFR25	
R38	A1006-0799	R-METAL FILM;RM 1/4 T 122-J SFR25	
R40	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R41	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R672	61048-177-222	R-CARBON;RD 1/8 T 222-J	
R675	A1006-0804	R-METAL FILM;RM 1/4 T 221-J SFR25	
R678	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R679	61048-177-152	R-CARBON;RD 1/8 T 152-J	
R680	A1006-0804	R-METAL FILM;RM 1/4 T 221-J SFR25	
VA1	A1330-0058	VARISTOR;SVC471D-14A 470V 0.6W 2500A T	
VA2	A1330-0058	VARISTOR;SVC471D-14A 470V 0.6W 2500A T	
ZD11	62169-403-829	DIODE-ZENER;MTZ 30D	
ZD12	62169-423-030	DIODE-ZENER;MTZ-18C	
ZD13	A4106-0006	DIODE-ZENER;MTZ4.7B 4.7V 1MA T	
ZD14	62169-403-821	DIODE-ZENER;MTZ 5.1B	
SYSTEM CONTROL PARTS			
C218	61407-117-102	C-CERAMIC.AXIAL;CAX B TAPG 102K-T	
C601	61407-117-104	C-CERAMIC.AXIAL;CAX Y TAPG 16V 103N-T	
C602	61637-503-471	C-ELEC;CEAP 10V 470M SG(8X11.5)	
C603	B1104-0294	C-ELEC;CE 03 E 5.5V T 104-Z SUPER/EECS5R5T104	
C604	61637-204-100	C-ELEC;CEAP 16V 10M SA(5X11)	
C605	61407-117-150	C-CERAMIC.AXIAL;CAX SL TAPG 50V 150-J	
C606	61407-117-150	C-CERAMIC.AXIAL;CAX SL TAPG 50V 150-J	
C609	61407-117-102	C-CERAMIC.AXIAL;CAX B TAPG 102K-T	
C610	61407-117-228	C-CERAMIC.AXIAL;CK QA F 25V 223Z/F 25V 223ZT	
C612	61407-117-104	C-CERAMIC.AXIAL;CAX Y TAPG 16V 103N-T	
C613	A1104-0624	C-ELEC;CE 04 -40/85 16V T 470-M SRE 6.3X5 P15.0	
C614	61407-117-104	C-CERAMIC.AXIAL;CAX Y TAPG 16V 103N-T	

Loca.No	Part No	Description & Specification	Remark
C615	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
C616	61417-109-210	C-CERAMIC.HK;CK45F TAPG 50V 104-Z	
C617	61417-109-210	C-CERAMIC.HK;CK45F TAPG 50V 104-Z	
C620	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C623	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C624	61407-117-228	C-CERAMIC.AXIAL;CK OA F 25V 223Z/F 25V 223ZT	
C625	61407-117-228	C-CERAMIC.AXIAL;CK OA F 25V 223Z/F 25V 223ZT	
C626	61407-117-104	C-CERAMIC.AXIAL;CAX Y TAPG 16V 103N-T	
CN601	B6010-0915	CONNECTOR-WAFER;TMC-A02X-A1 WHT STICK	
CN602	A6010-1366	CONNECTOR-WAFER;35223-2010 WHT MOLEX SIDE ENTRY	
CN603	B6010-1201	CONNECTOR-WAFER;TKC-A10P-B1 WHT TAIKO	
CN604	B6010-1201	CONNECTOR-WAFER;TKC-A10P-B1 WHT TAIKO	
D201	B4104-0046	DIODE-RECT;1N4002GP 100V 1A	
D206	62169-406-482	DIODE;1N4148 SAMSUNG	
D601	62169-406-482	DIODE;1N4148 SAMSUNG	
D602	62169-406-482	DIODE;1N4148 SAMSUNG	
D603	B4104-0046	DIODE-RECT;1N4002GP 100V 1A	
IC601	67199-0275-00	MICOM;HD6433726-B10F SV-140X(2) QFP	
IC602	62119-401-300	IC;KA8301(N.M)	
IC603	A4008-0754	IC;KA7533 DIP	
IC604	B4012-0110	IC-LINEAR;XL24C02 DIP	
L601	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
L602	66639-0003-00	FERRITE-BEAD INDUCTOR;NI-ZN FERRITE K150 BI3857	
LD601	B4150-0286	LED-INFRARED;GL381J1 YEL 950NM/3.5V	
PT601	B4161-0036	PHOTO-INTERRUPTER;SG-105LF3 ST	
PT602	B4161-0036	PHOTO-INTERRUPTER;SG-105LF3 ST	
Q601	62137-103-380	TRANSISTOR;KSA 733-Y TAPG	
Q602	62137-701-013	TRANSISTOR;KSR 1004 TAPG	
Q607	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q609	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
R230	61048-177-224	R-CARBON;RD 1/8 T 224-J	
R231	A1020-0442	R-CHIP;RH 1/8 BS 224-J 20X12 RD3A2BY224J	
R232	A1020-0334	R-CHIP;RH 1/8 BS 391-J 20X12 RD3A2BY391J	
R234	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R235	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R236	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R244	61048-177-183	R-CARBON;RD 1/8 T 183-J	
R245	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R247	61048-177-271	R-CARBON;RD 1/8 T 271-J	
R248	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R249	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R601	61048-177-363	R-CARBON;RD 1/8 T 363-J	
R602	61048-177-101	R-CARBON;RD 1/8 T 101-J	
R603	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R604	61048-177-101	R-CARBON;RD 1/8 T 101-J	
R605	61048-177-101	R-CARBON;RD 1/8 T 101-J	
R606	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R607	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R608	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R610	61048-177-103	R-CARBON;RD 1/8 T 103-J	
R611	61048-177-103	R-CARBON;RD 1/8 T 103-J	
R612	61048-177-103	R-CARBON;RD 1/8 T 103-J	
R613	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R614	61048-177-103	R-CARBON;RD 1/8 T 103-J	
R615	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R616	61048-177-103	R-CARBON;RD 1/8 T 103-J	
R618	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R619	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R620	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R621	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R622	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R623	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R624	61048-177-103	R-CARBON;RD 1/8 T 103-J	
R625	61048-177-102	R-CARBON;RD 1/8 T 102-J	

Loca.No	Part No	Description & Specification	Remark
R626	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R627	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R628	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R629	61048-177-393	R-CARBON;RD 1/8 T 393-J	
R630	61048-177-433	R-CARBON;RD 1/8 T 433-J	
R631	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R632	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R633	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R634	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R635	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R636	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R637	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R638	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R639	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R640	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R642	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R643	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R644	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R645	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R646	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R647	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R648	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R650	61048-177-103	R-CARBON;RD 1/8 T 103-J	
R651	61048-177-103	R-CARBON;RD 1/8 T 103-J	
R652	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R653	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R654	61048-177-270	R-CARBON;RD 1/8 T 270-J	
R655	61048-177-511	R-CARBON;RD 1/8 T 511-J	
R656	61048-177-683	R-CARBON;RD 1/8 T 683-J	
R658	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R659	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R660	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R662	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R663	61048-177-105	R-CARBON;RD 1/8 T 105-J	
R664	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R665	A1020-0334	R-CHIP;RH 1/8 BS 391-J 20X12 RD3A2BY391J	
R666	61048-177-224	R-CARBON;RD 1/8 T 224-J	
R667	A1020-0442	R-CHIP;RH 1/8 BS 224-J 20X12 RD3A2BY224J	
R668	61048-177-513	R-CARBON;RD 1/8 T 513-J	
R669	A1004-0357	R-METAL OXIDE;RS 2 RT 3R9-J	
R670	61048-177-122	R-CARBON;RD 1/8 T 122-J	
R671	61048-177-472	R-CARBON;RD 1/8 T 472-J	
R673	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R674	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R676	61048-177-472	R-CARBON;RD 1/8 T 472-J	
R677	61048-177-472	R-CARBON;RD 1/8 T 472-J	
R682	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R683	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R685	61048-177-103	R-CARBON;RD 1/8 T 103-J	
R699	61048-177-102	R-CARBON;RD 1/8 T 102-J	
S601	B4064-0007	TR-PHOTO;PT495F 35V 20MA 50MW 860NM/1V 20DEG	
S602	B4064-0007	TR-PHOTO;PT495F 35V 20MA 50MW 860NM/1V 20DEG	
SW601	66203-0020-00	SWITCH-PROGRAM;MXS00280MLB0	
XT601	B1283-0036	RESONATOR-CERAMIC;8MHZ EFOEC8004T4 3/CN J TAPG	
XT602	64539-021-009	CRYSTAL;32.768KHZ	
SERVO PARTS			
C201	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C202	61617-404-100	C-ELEC;CEAP 16V 10M RSS(4X7)	
C203	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C204	A1100-0962	C-CERAMIC,CHIP;CK 73 Y5V 25V 683-Z C2010 UMK210F68	
C205	61407-117-101	C-CERAMIC,AXIAL;UP050F 104Z	
C206	A1100-0135	C-CERAMIC,CHIP;CK 73 X7R 50V T 473-K C2012 21B473K	
C207	A1100-0010	C-CERAMIC,CHIP;CK 73 X7R 50V T 102-K C2012 21B 102	
C208	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	

Loca.No	Part No	Description & Specification	Remark
C209	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C210	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C211	A1104-0609	C-ELEC;CE 04 -40/85 35V T 4R7-M SRE 4X5	
C212	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C213	A1100-0080	C-CERAMIC,CHIP;CC 73 COG 50V T 820-J C2012 21C 820	
C214	A1100-0080	C-CERAMIC,CHIP;CC 73 COG 50V T 820-J C2012 21C 820	
C215	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C215	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C216	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C217	A1100-0039	C-CERAMIC,CHIP;CK 73 X7R 50V T 153-K C2012 21B 153	
C219	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
C220	61617-404-100	C-ELEC;CEAP 16V 10M RSS(4X7)	
C221	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C222	61407-117-104	C-CERAMIC,AXIAL;CAX Y TAPG 16V 103N-T	
C223	61637-205-470	C-ELEC;CEAP 25V 47M SA(6X11)	
C224	61617-405-470	C-ELECTROLYTIC;CE04W TAPG 25V 47M(RSS 6.3X7)	
C225	61407-117-102	C-CERAMIC,AXIAL;CAX B TAPG 102K-T	
C226	61407-117-680	C-CERAMIC,AXIAL;CAX SL TAPG 50V 680-J	
C227	61407-117-680	C-CERAMIC,AXIAL;CAX SL TAPG 50V 680-J	
C230	A1100-0855	C-CERAMIC,CHIP;CK OB Y5P 50V 221-K 20X12 UCN053B22	
C231	61617-404-100	C-ELEC;CEAP 16V 10M RSS(4X7)	
C232	A1104-0609	C-ELEC;CE 04 -40/85 35V T 4R7-M SRE 4X5	
C233	A1104-0610	C-ELEC;CE 04 -40/85 50V T 010-M NP SRE-BP 3.5X5	
C235	61617-404-100	C-ELEC;CEAP 16V 10M RSS(4X7)	
C236	A1104-0624	C-ELEC;CE 04 -40/85 16V T 470-M SRE 6.3X5 P15.0	
C251	A1100-0010	C-CERAMIC,CHIP;CK 73 X7R 50V T 102-K C2012 21B 102	
C253	61407-117-102	C-CERAMIC,AXIAL;CAX B TAPG 102K-T	
C260	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C261	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C262	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C263	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C264	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C299	A1100-0855	C-CERAMIC,CHIP;CK OB Y5P 50V 221-K 20X12 UCN053B22	
CN201	B6010-0855	CONNECTOR-HOUSING;TKC-G09P-A1 BLK	
CN202	B6010-0857	CONNECTOR-HOUSING;TKC-G06P-A1 BLK	
D202	B4104-0046	DIODE-RECT;1N4002GP 100V 1A	
D205	62169-406-482	DIODE;1N4148 SAMSUNG	
D207	62169-406-482	DIODE;1N4148 SAMSUNG	
D208	62169-406-482	DIODE;1N4148 SAMSUNG	
D604	62169-406-482	DIODE;1N4148 SAMSUNG	
IC201	A4008-1181	IC;KA8334 QFP 60PIN STICK	
L201	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
L202	60509-400-115	WIRE SO COPPER;TA 0.5/52 m/m	
Q201	62137-103-380	TRANSISTOR;KSA 733-Y TAPG	
Q202	A4050-0001	TR-GENERAL;2SD1468SQ 300MW 0.5MA 150MHZ 30V SI/NPN	
Q203	62137-701-013	TRANSISTOR;KSR 1004 TAPG	
R202	A1020-0322	R-CHIP;RH 1/8 BS 222-J 20X12 RD3A2BY222J	
R203	A1020-0344	R-CHIP;RH 1/8 BS 122-J 20X12 RD3A2BY122J	
R204	A1020-0790	R-CHIP;RH 1/8 BS 273-J 20X12	
R205	A1020-0824	R-CHIP;RH 1/8 BS 471-J 20X12	
R206	A1020-0343	R-CHIP;RH 1/8 BS 105-J 20X12 RD3A2BY105J	
R207	A1020-0441	R-CHIP;RH 1/8 BS 103-J 20X12 RD3A2BY103J	
R208	A1020-0320	R-CHIP;RH 1/8 BS 102-J 20X12 RD3A2BY102J	
R209	A1020-0333	R-CHIP;RH 1/8 BS 823-J 20X12 RD3A2BY823J	
R210	A1020-0795	R-CHIP;RH 1/8 BS 363-J 20X12	
R211	A1020-0442	R-CHIP;RH 1/8 BS 224-J 20X12 RD3A2BY224J	
R212	A1020-0544	R-CHIP;RH 1/8 CS 104-J 20X12 RD3A2BY104J	
R213	A1020-0825	R-CHIP;RH 1/8 BS 473-J 20X12	
R214	A1020-0544	R-CHIP;RH 1/8 CS 104-J 20X12 RD3A2BY104J	
R215	A1020-0823	R-CHIP;RH 1/8 BS 684-J 20X12	
R216	61048-177-473	R-CARBON;RD 1/8 T 473-J	
R217	A1020-0343	R-CHIP;RH 1/8 BS 105-J 20X12 RD3A2BY105J	
R218	A1020-0825	R-CHIP;RH 1/8 BS 473-J 20X12	
R219	61048-177-564	R-CARBON;RD 1/8 T 564-J	

Loca.No	Part No	Description & Specification	Remark
R220	A1020-0798	R-CHIP;RH 1/8 BS 393-J 20X12	
R221	A1020-0343	R-CHIP;RH 1/8 BS 105-J 20X12 RD3A2BY105J	
R222	A1020-0791	R-CHIP;RH 1/8 BS 274-J 20X12	
R223	A1020-0343	R-CHIP;RH 1/8 BS 105-J 20X12 RD3A2BY105J	
R224	A1020-0774	R-CHIP;RH 1/8 BS 123-J 20X12	
R225	61048-177-272	R-CARBON;RD 1/8 T 272-J	
R226	A1020-0791	R-CHIP;RH 1/8 BS 274-J 20X12	
R227	A1020-0321	R-CHIP;RH 1/8 BS 333-J 20X12 RD3A2BY333J	
R228	A1020-0323	R-CHIP;RH 1/8 BS 272-J 20X12 RD3A2BY272J	
R229	A1020-0449	R-CHIP;RH 1/8 BS 000-J 20X12 CROSS CONDUCTOR RD3A2	
R233	61048-177-122	R-CARBON;RD 1/8 T 122-J	
R237	A1020-0811	R-CHIP;RH 1/8 BS 683-J 20X12	
R238	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R239	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R241	A1020-0449	R-CHIP;RH 1/8 BS 000-J 20X12 CROSS CONDUCTOR RD3A2	
R242	61048-177-103	R-CARBON;RD 1/8 T 103-J	
R243	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R246	61048-177-123	R-CARBON;RD 1/8 T 123-J	
R253	A1020-0789	R-CHIP;RH 1/8 BS 271-J 20X12	
R254	61048-177-103	R-CARBON;RD 1/8 T 103-J	
R255	61048-177-103	R-CARBON;RD 1/8 T 103-J	
R256	61048-177-473	R-CARBON;RD 1/8 T 473-J	
R257	61048-177-122	R-CARBON;RD 1/8 T 122-J	
R258	A1020-0789	R-CHIP;RH 1/8 BS 271-J 20X12	
R259	61048-177-513	R-CARBON;RD 1/8 T 513-J	
R261	A1020-0322	R-CHIP;RH 1/8 BS 222-J 20X12 RD3A2BY222J	
R262	A1020-0431	R-CHIP;RH 1/8 BS 223-J 20X12 RD3A2BY223J	
R265	A1020-0811	R-CHIP;RH 1/8 BS 683-J 20X12	
VIDEO PARTS			
C328	A1100-0940	C-CERAMIC,CHIP;CC OB SL 50V 360-J 20X12 UCN053SL36	
C329	61407-117-104	C-CERAMIC,AXIAL;CAX Y TAPG 16V 103N-T	
C331	A1100-0628	C-CERAMIC,CHIP;CC 73 CH 50V T 201-J C2012	
C333	A1100-0071	C-CERAMIC,CHIP;CC 73 COG 50V T 391-J C2012 21C 391	
C334	A1100-0442	C-CERAMIC,CHIP;CC OB SL 50V 100-C 20X12 UCN053SL10	
C335	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
C336	61637-206-100	C-ELEC;CEAP 35V 10M SA(5X11)	
C337	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
C338	61407-117-104	C-CERAMIC,AXIAL;CAX Y TAPG 16V 103N-T	
C339	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C340	61637-204-470	C-ELEC;CEAP 16V 47M SA(5X11)	
C341	61637-206-100	C-ELEC;CEAP 35V 10M SA(5X11)	
C342	A1100-0446	C-CERAMIC,CHIP;CK OB SL 50V 050-C 20X12/UCN053 SL0	
C343	61637-208-010	C-ELEC;CEAP 50V 1M SA(5X11)	
C344	61407-117-228	C-CERAMIC,AXIAL;CK OA F 25V 223Z/F 25V 223ZT	
C345	61407-117-228	C-CERAMIC,AXIAL;CK OA F 25V 223Z/F 25V 223ZT	
C346	61417-104-260	C-CERAMIC,HK;CK45B TAPG 50V 680-K	
C347	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C348	61407-117-104	C-CERAMIC,AXIAL;CAX Y TAPG 16V 103N-T	
C349	A1100-0135	C-CERAMIC,CHIP;CK 73 X7R 50V T 473-K C2012 21B473K	
C350	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C351	61637-204-470	C-ELEC;CEAP 16V 47M SA(5X11)	
C352	61637-208-010	C-ELEC;CEAP 50V 1M SA(5X11)	
C353	61507-121-551	C-POLYESTER;CQ921M TAPG 50V 473-J	
C354	A1104-0610	C-ELEC;CE 04 -40/85 50V T 010-M NP SRE-BP 3.5X5	
C355	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
C357	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C358	A1100-0135	C-CERAMIC,CHIP;CK 73 X7R 50V T 473-K C2012 21B473K	
C360	61637-206-100	C-ELEC;CEAP 35V 10M SA(5X11)	
C361	61637-208-010	C-ELEC;CEAP 50V 1M SA(5X11)	
C362	61407-117-184	C-CERAMIC,AXIAL;CAX B TAPG 50V 181-K	
C364	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
C365	61637-206-100	C-ELEC;CEAP 35V 10M SA(5X11)	
C366	61637-206-100	C-ELEC;CEAP 35V 10M SA(5X11)	
C367	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	

Loca.No	Part No	Description & Specification	Remark
C368	61407-117-104	C-CERAMIC.AXIAL;CAX Y TAPG 16V 103N-T	
C369	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C370	61637-204-470	C-ELEC;CEAP 16V 47M SA(5X11)	
C371	A1100-0940	C-CERAMIC,CHIP;CC OB SL 50V 360-J 20X12 UCN053SL36	
C373	A1100-0079	C-CERAMIC,CHIP;CC 73 COG 50V T 750-J C2012 21C 750	
C374	61637-208-010	C-ELEC;CEAP 50V 1M SA(5X11)	
C375	61637-208-010	C-ELEC;CEAP 50V 1M SA(5X11)	
C376	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C377	61637-204-470	C-ELEC;CEAP 16V 47M SA(5X11)	
C378	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C380	61637-206-100	C-ELEC;CEAP 35V 10M SA(5X11)	
C381	A1100-0972	C-CERAMIC,CHIP;CC OB SL 50V 270-J 20X12 UCN053SL27	
C382	A1100-0628	C-CERAMIC,CHIP;CC 73 CH 50V T 201-J C2012	
C384	A1100-0507	C-CERAMIC,CHIP;CC OB SL 50V 180-J 20X12 UCN053SL18	
C395	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
D304	62169-406-482	DIODE;1N4148 SAMSUNG	
D305	62169-406-482	DIODE;1N4148 SAMSUNG	
D306	62169-406-482	DIODE;1N4148 SAMSUNG	
D307	62169-406-482	DIODE;1N4148 SAMSUNG	
D308	62169-406-482	DIODE;1N4148 SAMSUNG	
D309	62169-406-482	DIODE;1N4148 SAMSUNG	
D310	62169-406-482	DIODE;1N4148 SAMSUNG	
D312	62169-406-482	DIODE;1N4148 SAMSUNG	
D313	62169-406-482	DIODE;1N4148 SAMSUNG	
D314	62169-406-482	DIODE;1N4148 SAMSUNG	
D315	62169-406-482	DIODE;1N4148 SAMSUNG	
D316	62169-406-482	DIODE;1N4148 SAMSUNG	
D317	62169-406-482	DIODE;1N4148 SAMSUNG	
D351	62169-406-482	DIODE;1N4148 SAMSUNG	
IC302	B4012-0275	IC-LINEAR;LA7430 DIP	
IC303	B4012-0278	IC-LINEAR;LC89971 DIP	
L311	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
L312	62427-020-330	COIL PEAKING.AXIAL;LAL02TB 330J TAPG	
L313	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
L314	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
L315	62427-020-151	COIL PEAKING.AXIAL;LAL02TB 151J TAPG	
L316	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
L318	62427-020-151	COIL PEAKING.AXIAL;LAL02TB 151J TAPG	
L320	62427-020-680	COIL PEAKING.AXIAL;LAL02TB 680J TAPG	
L322	62427-020-470	COIL PEAKING.AXIAL;LAL02TB 470J TAPG	
Q304	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q305	62137-103-380	TRANSISTOR;KSA 733-Y TAPG	
Q307	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q308	62137-701-013	TRANSISTOR;KSR 1004 TAPG	
Q309	62137-701-013	TRANSISTOR;KSR 1004 TAPG	
Q310	62137-701-013	TRANSISTOR;KSR 1004 TAPG	
Q311	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q312	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q314	62137-701-013	TRANSISTOR;KSR 1004 TAPG	
Q317	62137-701-020	TRANSISTOR;KSR 2001 TAPG	
Q318	62137-701-020	TRANSISTOR;KSR 2001 TAPG	
Q319	62137-701-013	TRANSISTOR;KSR 1004 TAPG	
Q324	62137-701-013	TRANSISTOR;KSR 1004 TAPG	
R306	A1020-0322	R-CHIP;RH 1/8 BS 222-J 20X12 RD3A2BY222J	
R319	A1020-0441	R-CHIP;RH 1/8 BS 103-J 20X12 RD3A2BY103J	
R320	A1020-0441	R-CHIP;RH 1/8 BS 103-J 20X12 RD3A2BY103J	
R322	A1020-0786	R-CHIP;RH 1/8 BS 242-J 20X12	
R325	A1020-0323	R-CHIP;RH 1/8 BS 272-J 20X12 RD3A2BY272J	
R326	A1020-0723	R-CHIP;RH 1/8 BS 681-J 20X12 RD3A2BY681J	
R327	A1020-0320	R-CHIP;RH 1/8 BS 102-J 20X12 RD3A2BY102J	
R328	61048-177-273	R-CARBON;RD 1/8 T 273-J	
R329	61048-177-223	R-CARBON;RD 1/8 T 223-J	
R330	A1020-0441	R-CHIP;RH 1/8 BS 103-J 20X12 RD3A2BY103J	
R331	61048-177-103	R-CARBON;RD 1/8 T 103-J	

Loca No	Part No	Description & Specification	Remark
R332	A1020-0325	R-CHIP;RH 1/8 BS 182-J 20X12 RD3A2BY182J	
R333	A1020-0442	R-CHIP;RH 1/8 BS 224-J 20X12 RD3A2BY224J	
R334	A1020-0441	R-CHIP;RH 1/8 BS 103-J 20X12 RD3A2BY103J	
R335	A1020-0334	R-CHIP;RH 1/8 BS 391-J 20X12 RD3A2BY391J	
R336	A1020-0325	R-CHIP;RH 1/8 BS 182-J 20X12 RD3A2BY182J	
R337	A1020-0441	R-CHIP;RH 1/8 BS 103-J 20X12 RD3A2BY103J	
R338	A1020-0320	R-CHIP;RH 1/8 BS 102-J 20X12 RD3A2BY102J	
R339	A1020-0324	R-CHIP;RH 1/8 BS 331-J 20X12 RD3A2BY331J	
R341	A1020-0339	R-CHIP;RH 1/8 BS 822-J 20X12 RD3A2BY822J	
R342	A1020-0320	R-CHIP;RH 1/8 BS 102-J 20X12 RD3A2BY102J	
R345	61048-177-103	R-CARBON;RD 1/8 T 103-J	
R350	A1020-0333	R-CHIP;RH 1/8 BS 823-J 20X12 RD3A2BY823J	
R351	A1020-0320	R-CHIP;RH 1/8 BS 102-J 20X12 RD3A2BY102J	
R352	A1020-0344	R-CHIP;RH 1/8 BS 122-J 20X12 RD3A2BY122J	
R353	A1020-0441	R-CHIP;RH 1/8 BS 103-J 20X12 RD3A2BY103J	
R354	A1020-0319	R-CHIP;RH 1/8 BS 751-J 20X12 RD3A2BY751J	
R359	A1020-0320	R-CHIP;RH 1/8 BS 102-J 20X12 RD3A2BY102J	
R395	A1020-0811	R-CHIP;RH 1/8 BS 683-J 20X12	
R396	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R397	A1020-0787	R-CHIP;RH 1/8 BS 243-J 20X12	
R398	61048-177-104	R-CARBON;RD 1/8 T 104-J	
R399	61048-177-102	R-CARBON;RD 1/8 T 102-J	
XT01	64539-012-009	CRYSTAL;3.579545 HC/49U(8PF) TAPG	
XT02	64539-012-079	X-TAL;4.43 3619MHZ 8PPM TAPG	
PRE-AMP PARTS			
C303	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C307	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C308	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C310	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C311	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C312	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C314	61637-204-470	C-ELEC;CEAP 16V 47M SA(5X11)	
C315	61617-408-010	C-ELEC;CEAP 50V 1M RSS(4X7)	
C316	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C317	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C318	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C319	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C321	A1100-0036	C-CERAMIC,CHIP;CC 73 COG 50V T 121-J C2012	
C322	A1100-0036	C-CERAMIC,CHIP;CC 73 COG 50V T 121-J C2012	
C323	A1100-0445	C-CERAMIC,CHIP;CK OB SL 50V 470-J 20X12 UCN053SL47	
C324	A1100-0507	C-CERAMIC,CHIP;CC OB SL 50V 180-J 20X12 UCN053SL18	
C325	A1100-0972	C-CERAMIC,CHIP;CC OB SL 50V 270-J 20X12 UCN053SL27	
C326	A1100-0445	C-CERAMIC,CHIP;CK OB SL 50V 470-J 20X12 UCN053SL47	
C327	A1100-0068	C-CERAMIC,CHIP;CC 73 COG 50V T 331-J C2012 21C331J	
C330	A1100-0972	C-CERAMIC,CHIP;CC OB SL 50V 270-J 20X12 UCN053SL27	
C332	A1100-0442	C-CERAMIC,CHIP;CC OB SL 50V 100-C 20X12 UCN053SL10	
C359	A1100-0041	C-CERAMIC,CHIP;CC 73 COG 50V T 181-J C2012 CL21C18	
C379	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C383	61637-204-470	C-ELEC;CEAP 16V 47M SA(5X11)	
C388	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C389	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C390	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C391	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C392	61407-117-104	C-CERAMIC,AXIAL;CAX Y TAPG 16V 103N-T	
C393	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C394	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C396	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C397	61407-117-150	C-CERAMIC,AXIAL;CAX SL TAPG 50V 150-J	
C398	A1100-0010	C-CERAMIC,CHIP;CK 73 X7R 50V T 102-K C2012 21B 102	
CN301	B6010-0852	CONNECTOR-WAFER;W323-HLEM08S-1 BLK	
D301	62169-406-482	DIODE;1N4148 SAMSUNG	
D302	62169-406-482	DIODE;1N4148 SAMSUNG	
D303	62169-406-482	DIODE;1N4148 SAMSUNG	
D318	62169-406-482	DIODE;1N4148 SAMSUNG	

Loca No	Part No	Description & Specification	Remark
D319	62169-406-482	DIODE;1N4148 SAMSUNG	
IC301	B4012-0452	IC-LINEAR;LA7416 DIP BULK	
L301	66639-0003-00	FERRITE-BEAD INDUCTOR;NI-ZN FERRITE K150 BI3857	
L302	62427-020-221	COIL PEAKING.AXIAL;LAL02TB 221J TAPG	
L303	62427-020-680	COIL PEAKING.AXIAL;LAL02TB 680J TAPG	
L304	62427-020-220	COIL PEAKING.AXIAL;LAL02TB 220J TAPG	
L305	62427-020-270	COIL PEAKING.AXIAL;LAL02TB 270J TAPG	
L307	62427-020-560	COIL PEAKING.AXIAL;LAL02TB 560J TAPG	
L308	62427-020-220	COIL PEAKING.AXIAL;LAL02TB 220J TAPG	
L309	62427-020-181	COIL PEAKING.AXIAL;LAL02TB 181J TAPG	
L310	62427-020-220	COIL PEAKING.AXIAL;LAL02TB 220J TAPG	
L317	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
L319	62427-020-270	COIL PEAKING.AXIAL;LAL02TB 270J TAPG	
L321	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
Q301	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q302	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q303	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q313	62137-701-013	TRANSISTOR;KSR 1004 TAPG	
Q315	62137-701-013	TRANSISTOR;KSR 1004 TAPG	
Q316	62137-701-013	TRANSISTOR;KSR 1004 TAPG	
Q320	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q321	62137-103-380	TRANSISTOR;KSA 733-Y TAPG	
Q322	62137-103-380	TRANSISTOR;KSA 733-Y TAPG	
Q323	62137-701-013	TRANSISTOR;KSR 1004 TAPG	
R301	A1020-0782	R-CHIP;RH 1/8 BS 203-J 20X12	
R304	A1020-0544	R-CHIP;RH 1/8 CS 104-J 20X12 RD3A2BY104J	
R305	61048-177-563	R-CARBON;RD 1/8 T 563-J	
R307	A1020-0537	R-CHIP;RH 1/8 BS 202-J 20X12 RD3A2BY202J	
R309	A1020-0320	R-CHIP;RH 1/8 BS 102-J 20X12 RD3A2BY102J	
R310	A1020-0777	R-CHIP;RH 1/8 BS 151-J 20X12	
R311	A1020-0319	R-CHIP;RH 1/8 BS 751-J 20X12 RD3A2BY751J	
R312	A1020-0789	R-CHIP;RH 1/8 BS 271-J 20X12	
R313	A1020-0322	R-CHIP;RH 1/8 BS 222-J 20X12 RD3A2BY222J	
R314	A1020-0336	R-CHIP;RH 1/8 BS 561-J 20X12 RD3A2BY561J	
R315	A1020-0320	R-CHIP;RH 1/8 BS 102-J 20X12 RD3A2BY102J	
R316	A1020-0345	R-CHIP;RH 1/8 BS 183-J 20X12 RD3A2BY183J	
R317	A1020-0334	R-CHIP;RH 1/8 BS 391-J 20X12 RD3A2BY391J	
R318	A1020-0344	R-CHIP;RH 1/8 BS 122-J 20X12 RD3A2BY122J	
R321	A1020-0324	R-CHIP;RH 1/8 BS 331-J 20X12 RD3A2BY331J	
R323	A1020-0334	R-CHIP;RH 1/8 BS 391-J 20X12 RD3A2BY391J	
R324	A1020-0441	R-CHIP;RH 1/8 BS 103-J 20X12 RD3A2BY103J	
R340	A1020-0786	R-CHIP;RH 1/8 BS 242-J 20X12	
R343	61048-177-392	R-CARBON;RD 1/8 T 392-J	
R344	A1020-0322	R-CHIP;RH 1/8 BS 222-J 20X12 RD3A2BY222J	
R349	A1020-0786	R-CHIP;RH 1/8 BS 242-J 20X12	
R356	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R357	61048-177-333	R-CARBON;RD 1/8 T 333-J	
R358	A1020-0321	R-CHIP;RH 1/8 BS 333-J 20X12 RD3A2BY333J	
R361	A1020-0336	R-CHIP;RH 1/8 BS 561-J 20X12 RD3A2BY561J	
R362	A1020-0787	R-CHIP;RH 1/8 BS 243-J 20X12	
R363	A1020-0774	R-CHIP;RH 1/8 BS 123-J 20X12	
R364	A1020-0320	R-CHIP;RH 1/8 BS 102-J 20X12 RD3A2BY102J	
R365	A1020-0320	R-CHIP;RH 1/8 BS 102-J 20X12 RD3A2BY102J	
R366	A1020-0537	R-CHIP;RH 1/8 BS 202-J 20X12 RD3A2BY202J	
R367	A1020-0317	R-CHIP;RH 1/8 BS 392-J 20X12 RD3A2BY392J	
R368	A1020-0317	R-CHIP;RH 1/8 BS 392-J 20X12 RD3A2BY392J	
R369	A1020-0321	R-CHIP;RH 1/8 BS 333-J 20X12 RD3A2BY333J	
R370	A1020-0321	R-CHIP;RH 1/8 BS 333-J 20X12 RD3A2BY333J	
R371	A1020-0317	R-CHIP;RH 1/8 BS 392-J 20X12 RD3A2BY392J	
R372	A1020-0537	R-CHIP;RH 1/8 BS 202-J 20X12 RD3A2BY202J	
R373	A1020-0320	R-CHIP;RH 1/8 BS 102-J 20X12 RD3A2BY102J	
R375	61048-177-102	R-CARBON;RD 1/8 T 102-J	
SECAM PARTS			
C3S01	A1100-0009	C-CERAMIC,CHIP;CC 73 COG 50V T 101-J C2012 21C101J	

Loca.No	Part No	Description & Specification	Remark
C3S02	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C3S03	A1100-0006	C-CERAMIC,CHIP;CK 73 X7R 50V T 561-K C2012 21B 561	
C3S04	61637-208-478	C-ELEC;CEAP 50V 0.47M SA(5X11)	
C3S05	61407-117-104	C-CERAMIC,AXIAL;CAX Y TAPG 16V 103N-T	
C3S06	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C3S07	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C3S08	61637-204-470	C-ELEC;CEAP 16V 47M SA(5X11)	
C3S09	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C3S10	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C3S11	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C3S12	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C3S13	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C3S14	A1100-0972	C-CERAMIC,CHIP;CC OB SL 50V 270-J 20X12 UCN053SL27	
C3S15	61637-204-470	C-ELEC;CEAP 16V 47M SA(5X11)	
C3S18	A1100-0020	C-CERAMIC,CHIP;CK 73 X7R 50V T 472-K C2012 21B 472	
C3S19	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C3S20	61407-117-104	C-CERAMIC,AXIAL;CAX Y TAPG 16V 103N-T	
C3S21	A1100-0438	C-CERAMIC,CHIP;CK OB A 50V 680-K 20X12 UCN053 A68	
C3S22	A1100-0080	C-CERAMIC,CHIP;CC 73 COG 50V T 820-J C2012 21C 820	
C3S23	61407-117-104	C-CERAMIC,AXIAL;CAX Y TAPG 16V 103N-T	
C3S24	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C3S25	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C3S27	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
D3S01	62169-406-482	DIODE;1N4148 SAMSUNG	
IC3S01	B4012-0373	IC-LINEAR;BA7207S DIP	
L3S01	62427-020-120	COIL PEAKING,AXIAL;LAL02TB 120J TAPG	
L3S02	62427-020-470	COIL PEAKING,AXIAL;LAL02TB 470J TAPG	
L3S03	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
L3S04	62427-020-101	COIL PEAKING,AXIAL;LAL02TB 101J TAPG	
Q3S01	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q3S03	62137-701-013	TRANSISTOR;KSR 1004 TAPG	
Q3S04	62137-103-380	TRANSISTOR;KSA 733-Y TAPG	
R3S01	61048-177-752	R-CARBON;RM 1/8 T 752-J	
R3S02	61048-177-752	R-CARBON;RM 1/8 T 752-J	
R3S04	A1020-0334	R-CHIP;RH 1/8 BS 391-J 20X12 RD3A2BY391J	
R3S05	A1020-0336	R-CHIP;RH 1/8 BS 561-J 20X12 RD3A2BY561J	
R3S06	A1020-0441	R-CHIP;RH 1/8 BS 103-J 20X12 RD3A2BY103J	
R3S07	A1020-0544	R-CHIP;RH 1/8 CS 104-J 20X12 RD3A2BY104J	
R3S08	A1020-0321	R-CHIP;RH 1/8 BS 333-J 20X12 RD3A2BY333J	
R3S09	A1020-0774	R-CHIP;RH 1/8 BS 123-J 20X12	
R3S10	A1020-0324	R-CHIP;RH 1/8 BS 331-J 20X12 RD3A2BY331J	
R3S11	A1020-0786	R-CHIP;RH 1/8 BS 242-J 20X12	
R3S12	61048-177-392	R-CARBON;RD 1/8 T 392-J	
R3S13	A1020-0320	R-CHIP;RH 1/8 BS 102-J 20X12 RD3A2BY102J	
R3S14	A1020-0344	R-CHIP;RH 1/8 BS 122-J 20X12 RD3A2BY122J	
R3S15	61048-177-333	R-CARBON;RD 1/8 T 333-J	
R3S16	A1020-0321	R-CHIP;RH 1/8 BS 333-J 20X12 RD3A2BY333J	
R3S19	A1020-0431	R-CHIP;RH 1/8 BS 223-J 20X12 RD3A2BY223J	
R3S20	A1020-0790	R-CHIP;RH 1/8 BS 273-J 20X12	
R3S21	A1020-0455	R-CHIP;RH 1/8 BS 152-J 20X12 RD3A2BY152J	
R3S22	A1020-0320	R-CHIP;RH 1/8 BS 102-J 20X12 RD3A2BY102J	
VR3S01	B1054-0229	VR-SEMI;EVN-CYAA03-BE3 2.2KB CARBON T TOP 2.5W 50V	
VR3S02	B1054-0229	VR-SEMI;EVN-CYAA03-BE3 2.2KB CARBON T TOP 2.5W 50V	
I/O PARTS			
C4303	61637-208-479	C-ELEC;CEAP 50V 4.7M SA(5X11)	
C4304	61617-404-101	C-ELEC;CEAP 16V 100M RSS(6.3X7)	
C4305	61637-204-100	C-ELEC;CEAP 16V 10M SA(5X11)	
C4306	61617-404-100	C-ELEC;CEAP 16V 10M RSS(4X7)	
C4308	61637-204-100	C-ELEC;CEAP 16V 10M SA(5X11)	
C4309	61637-503-471	C-ELEC;CEAP 10V 470M SG(8X11.5)	
C4310	A1100-0433	C-CERAMIC,CHIP;CK OB A 50V 101-K 20X12/UCN053 A101	
C4311	A1100-0433	C-CERAMIC,CHIP;CK OB A 50V 101-K 20X12/UCN053 A101	
C4313	A1100-0970	C-CERAMIC,CHIP;CK OB Y5P 50V 820-K 20X12 UCN053A82	
C4314	A1100-0970	C-CERAMIC,CHIP;CK OB Y5P 50V 820-K 20X12 UCN053A82	

Loca.No	Part No	Description & Specification	Remark
C4315	61637-503-471	C-ELEC;CEAP 10V 470M SG(8X11.5)	
C4316	61407-117-103	C-CERAMIC.AXIAL;CAX B TAPG 101K-T	
C4317	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)	
C4318	A1100-0433	C-CERAMIC,CHIP;CK OB A 50V 101-K 20X12/UCN053 A101	
C4319	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C4320	61637-204-470	C-ELEC;CEAP 16V 47M SA(5X11)	
C4321	A1100-0970	C-CERAMIC,CHIP;CK OB Y5P 50V 820-K 20X12 UCN053A82	
C4322	A1100-0970	C-CERAMIC,CHIP;CK OB Y5P 50V 820-K 20X12 UCN053A82	
C4330	61637-208-479	C-ELEC;CEAP 50V 4.7M SA(5X11)	
C4331	A1100-0970	C-CERAMIC,CHIP;CK OB Y5P 50V 820-K 20X12 UCN053A82	
C4332	61617-408-479	C-ELEC;CEAP 50V 4.7M RSS(4X7)	
D4301	62169-406-482	DIODE;1N4148 SAMSUNG	
D4302	62169-406-482	DIODE;1N4148 SAMSUNG	
D4303	62169-406-482	DIODE;1N4148 SAMSUNG	
D4304	62169-406-482	DIODE;1N4148 SAMSUNG	
D4305	62169-406-482	DIODE;1N4148 SAMSUNG	
D4306	62169-406-482	DIODE;1N4148 SAMSUNG	
IC4301	62119-401-310	IC;KA8403	
IC4302	62119-401-310	IC;KA8403	
JC4301	A3040-0189	JACK-SCART;DSR-9408 21P BLK	
JC4302	A3040-0192	JACK-RCA;P110 DSP-9411 2P	
L4301	62427-020-330	COIL PEAKING.AXIAL;LAL02TB 330J TAPG	
L4302	62427-020-330	COIL PEAKING.AXIAL;LAL02TB 330J TAPG	
L4303	A1160-0016	INDUCTOR;70UH-M RT BFS3565R2F	
L4304	A1160-0016	INDUCTOR;70UH-M RT BFS3565R2F	
L4306	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
L4311	62427-020-330	COIL PEAKING.AXIAL;LAL02TB 330J TAPG	
Q4301	62137-701-020	TRANSISTOR;KSR 2001 TAPG	
Q4302	62137-701-013	TRANSISTOR;KSR 1004 TAPG	
Q4303	62137-103-380	TRANSISTOR;KSA 733-Y TAPG	
Q4304	62137-103-380	TRANSISTOR;KSA 733-Y TAPG	
Q4305	62137-103-380	TRANSISTOR;KSA 733-Y TAPG	
R4301	A1020-0320	R-CHIP;RH 1/8 BS 102-J 20X12 RD3A2BY102J	
R4302	A1020-0320	R-CHIP;RH 1/8 BS 102-J 20X12 RD3A2BY102J	
R4303	A1020-0442	R-CHIP;RH 1/8 BS 224-J 20X12 RD3A2BY224J	
R4304	A1020-0812	R-CHIP;RH 1/8 BS 750-J 20X12	
R4305	A1020-0810	R-CHIP;RH 1/8 BS 680-J 20X12	
R4306	A1020-0774	R-CHIP;RH 1/8 BS 123-J 20X12	
R4307	61048-177-123	R-CARBON;RD 1/8 T 123-J	
R4308	A1020-0321	R-CHIP;RH 1/8 BS 333-J 20X12 RD3A2BY333J	
R4309	61048-177-512	R-CARBON;RD 1/8 T 512-J	
R4310	61048-177-512	R-CARBON;RD 1/8 T 512-J	
R4311	61048-177-512	R-CARBON;RD 1/8 T 512-J	
R4312	61048-177-122	R-CARBON;RD 1/8 T 122-J	
R4313	A1006-0820	R-METAL FILM;RM 1/4 T 821-J SFR25	
R4314	A1020-0320	R-CHIP;RH 1/8 BS 102-J 20X12 RD3A2BY102J	
R4315	A1020-0443	R-CHIP;RH 1/8 BS 621-J 20X12 RD3A2BY621J	
R4316	A1020-0774	R-CHIP;RH 1/8 BS 123-J 20X12	
R4317	A1020-0449	R-CHIP;RH 1/8 BS 000-J 20X12 CROSS CONDUCTOR RD3A2	
R4318	A1020-0443	R-CHIP;RH 1/8 BS 621-J 20X12 RD3A2BY621J	
R4319	A1020-0321	R-CHIP;RH 1/8 BS 333-J 20X12 RD3A2BY333J	
R4320	61048-177-621	R-CARBON;RD 1/8 T 621-J	
R4321	A1020-0810	R-CHIP;RH 1/8 BS 680-J 20X12	
R4322	61048-177-512	R-CARBON;RD 1/8 T 512-J	
AUDIO PARTS			
C501	61617-408-479	C-ELEC;CEAP 50V 4.7M RSS(4X7)	
C502	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)	
C503	61507-121-471	C-POLYESTER;C0921M TAPG 50V 103-J	
C504	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C505	61407-117-101	C-CERAMIC.AXIAL;UP050F 104Z	
C506	61637-208-339	C-ELEC;CEAP 50V 3.3M SA(5X11)	
C507	A1104-0609	C-ELEC;CE 04 -40/85 35V T 4R7-M SRE 4X5	
C508	61507-121-471	C-POLYESTER;C0921M TAPG 50V 103-J	
C509	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	

Loca.No	Part No	Description & Specification	Remark
C510	61617-408-010	C-ELEC;CEAP 50V 1M RSS(4X7)	
C511	61617-404-100	C-ELEC;CEAP 16V 10M RSS(4X7)	
C512	A1104-0608	C-ELEC;CE 04 -25/85 50V T 010-M SRE 3X5	
C513	61507-121-471	C-POLYESTER;CQ921M TAPG 50V 103-J	
C514	61507-121-471	C-POLYESTER;CQ921M TAPG 50V 103-J	
C515	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)	
C516	A1100-0024	C-CERAMIC,CHIP;CK 73 X7R 50V T 822-K C2012 822	
C517	A1100-0980	C-CERAMIC,CHIP;CK 73 Y5V 50V T 682-K C2012	
C518	A1100-0980	C-CERAMIC,CHIP;CK 73 Y5V 50V T 682-K C2012	
C519	B1102-0113	C-FILM;CQ 922 P 50V 473-J CQ298PVT473J/ECQV1473JZ3	
C520	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)	
C521	61407-117-104	C-CERAMIC,AXIAL;CAX Y TAPG 16V 103N-T	
C522	A1100-0020	C-CERAMIC,CHIP;CK 73 X7R 50V T 472-K C2012 21B 472	
C523	61407-117-104	C-CERAMIC,AXIAL;CAX Y TAPG 16V 103N-T	
C524	A1100-0010	C-CERAMIC,CHIP;CK 73 X7R 50V T 102-K C2012 21B 102	
C525	A1100-0047	C-CERAMIC,CHIP;CK 73 X7R 50V T 272-K C2012 21B 272	
C526	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C527	B1102-0276	C-FILM;CQ 922 M 100V T 183-J ECQB1183JF3	
C528	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C532	A1100-0015	C-CERAMIC,CHIP;CK 73 X7R 50V T 152-K C2012	
C550	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)	
CN501	B6010-0861	CONNECTOR-WAFER;W323-HLEM06S-1 BLK	
CN502	B6010-0436	CONNECTOR-WAFER;TMC-E02X-A1 BLK STICK	
D501	62169-406-482	DIODE;1N4148 SAMSUNG	
D503	62169-406-482	DIODE;1N4148 SAMSUNG	
FL501	A1208-0004	TRANS-OSC;126QN-KS442321YCT 6.3X5MM 920UH BIAS BLK	
FL502	62429-014-110	COIL BIAS OSC;B02 70KHZ W(TOKO)VX1850	
IC501	B4012-0273	IC-LINEAR;LA7286 DIP	
L501	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
L502	62427-813-153	COIL-PEAKING;EL0607RA 15mH-J	
L503	62427-812-101	COIL-PEAKING;EL0606RA 100uH-J	
Q501	62137-702-020	TRANSISTOR;KSC 1008-Y TAPG	
Q502	62137-701-013	TRANSISTOR;KSR 1004 TAPG	
Q503	62137-701-013	TRANSISTOR;KSR 1004 TAPG	
Q504	62137-701-020	TRANSISTOR;KSR 2001 TAPG	
Q505	62137-701-013	TRANSISTOR;KSR 1004 TAPG	
Q506	62137-702-020	TRANSISTOR;KSC 1008-Y TAPG	
R501	61048-177-151	R-CARBON;RD 1/8 T 151-J	
R502	61048-177-101	R-CARBON;RD 1/8 T 101-J	
R503	61048-177-334	R-CARBON;RD 1/8 T 334-J	
R504	61048-177-103	R-CARBON;RD 1/8 T 103-J	
R505	61048-177-182	R-CARBON;RD 1/8 T 182-J	
R506	61048-177-155	R-CARBON;RD 1/8 T 155-J	
R507	61048-177-273	R-CARBON;RD 1/8 T 273-J	
R508	61048-177-822	R-CARBON;RD 1/8 T 822-J	
R509	61048-177-103	R-CARBON;RD 1/8 T 103-J	
R510	A1020-0543	R-CHIP;RH 1/8 CS 101-J 20X12 RD3A2BY101J	
R511	61048-177-562	R-CARBON;RD 1/8 T 562-J	
R512	A1020-0322	R-CHIP;RH 1/8 BS 222-J 20X12 RD3A2BY222J	
R513	61048-177-123	R-CARBON;RD 1/8 T 123-J	
R515	61048-177-303	R-CARBON;RD 1/8 T 303-J	
R516	61048-177-479	R-CARBON;RD 1/8 T 4R7-J	
R517	61048-177-472	R-CARBON;RD 1/8 T 472-J	
R518	61048-177-470	R-CARBON;RD 1/8 T 470-J	
R519	61048-177-181	R-CARBON;RD 1/8 T 181-J	
R520	61048-177-183	R-CARBON;RD 1/8 T 183-J	
R521	61048-177-122	R-CARBON;RD 1/8 T 122-J	
R522	61048-177-223	R-CARBON;RD 1/8 T 223-J	
R523	A1006-0816	R-METAL FILM;RM 1/4 T 561-J SFR25	
R524	A1006-0816	R-METAL FILM;RM 1/4 T 561-J SFR25	
R530	61048-177-681	R-CARBON;RD 1/8 T 681-J	
R535	61048-177-479	R-CARBON;RD 1/8 T 4R7-J	

Loca.No	Part No	Description & Specification	Remark
O.S.D PARTS			
C901	61637-204-470	C-ELEC;CEAP 16V 47M SA(5X11)	
C902	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C903	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C904	61637-204-470	C-ELEC;CEAP 16V 47M SA(5X11)	
C905	61407-105-250	C-CERAMIC.TEMP;CC45 CH TAPG 50V 39-J	
C907	61507-121-600	C-POLYESTER;CQ921M TAPG 50V 563-K	
C908	61407-117-270	C-CERAMIC AXIAL;CK OA B 50V 270K/B 50V 270K-T	
C910	61637-204-100	C-ELEC;CEAP 16V 10M SA(5X11)	
C911	61637-208-010	C-ELEC;CEAP 50V 1M SA(5X11)	
C912	61407-101-540	C-CERAMIC.TEMP;CC45 SL TAPG 50V 560-J	
C913	61637-208-478	C-ELEC;CEAP 50V 0.47M SA(5X11)	
C914	A1100-0009	C-CERAMIC,CHIP;CC 73 CCG 50V T 101-J C2012 21C101J	
C915	A1100-0438	C-CERAMIC,CHIP;CK OB A 50V 680-K 20X12 UCN053 A68	
C916	A1100-0438	C-CERAMIC,CHIP;CK OB A 50V 680-K 20X12 UCN053 A68	
C917	61637-208-010	C-ELEC;CEAP 50V 1M SA(5X11)	
C918	A1100-0496	C-CERAMIC,CHIP;CK OB A 50V 560-J 20X12 UCN053A560J	
C919	A1100-0496	C-CERAMIC,CHIP;CK OB A 50V 560-J 20X12 UCN053A560J	
C920	A1100-0496	C-CERAMIC,CHIP;CK OB A 50V 560-J 20X12 UCN053A560J	
C933	61637-204-100	C-ELEC;CEAP 16V 10M SA(5X11)	
D901	B4104-0046	DIODE-RECT;1N4002GP 100V 1A	
IC901	A4008-1127	IC;KS5516-01 DIP PAL	
L902	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
L903	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
L904	62427-020-470	COIL PEAKING.AXIAL;LAL02TB 470J TAPG	
L905	62427-020-470	COIL PEAKING.AXIAL;LAL02TB 470J TAPG	
L906	62427-020-011	COIL PEAKING.AXIAL;LAL02TB 100J TAPG	
Q901	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
R901	61048-177-622	R-CARBON;RD 1/8 T 622-J	
R902	61048-177-222	R-CARBON;RD 1/8 T 222-J	
R903	61048-177-122	R-CARBON;RD 1/8 T 122-J	
R904	61048-177-221	R-CARBON;RD 1/8 T 221-J	
R905	61048-177-104	R-CARBON;RD 1/8 T 104-J	
R906	A1020-0320	R-CHIP;RH 1/8 BS 102-J 20X12 RD3A2BY102J	
R910	A1020-0441	R-CHIP;RH 1/8 BS 103-J 20X12 RD3A2BY103J	
R911	A1020-0441	R-CHIP;RH 1/8 BS 103-J 20X12 RD3A2BY103J	
R912	A1020-0442	R-CHIP;RH 1/8 BS 224-J 20X12 RD3A2BY224J	
R915	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R920	A1020-0335	R-CHIP;RH 1/8 BS 472-J 20X12 RD3A2BY472J	
R921	A1020-0335	R-CHIP;RH 1/8 BS 472-J 20X12 RD3A2BY472J	
R922	A1020-0335	R-CHIP;RH 1/8 BS 472-J 20X12 RD3A2BY472J	
R923	61048-177-151	R-CARBON;RD 1/8 T 151-J	
602	69529-302-203	ASSY SUB	
C401	61407-117-101	C-CERAMIC.AXIAL;UP050F 104Z	
C402	61637-208-220	C-ELEC;CEAP 50V 22M SA(6X11)	
C403	61407-117-101	C-CERAMIC.AXIAL;UP050F 104Z	
C404	61407-117-101	C-CERAMIC.AXIAL;UP050F 104Z	
C405	61637-504-331	C-ELEC;CEAP 16V 330M SMS(8X11)	
C406	B1102-0125	C-FILM;CQ 982 P 50V T 104-J 40/85 ECQV1H104JZ3	
C407	B1102-0125	C-FILM;CQ 982 P 50V T 104-J 40/85 ECQV1H104JZ3	
C408	B1102-0125	C-FILM;CQ 982 P 50V T 104-J 40/85 ECQV1H104JZ3	
C409	B1102-0125	C-FILM;CQ 982 P 50V T 104-J 40/85 ECQV1H104JZ3	
C410	61637-204-470	C-ELEC;CEAP 16V 47M SA(5X11)	
C412	61407-117-104	C-CERAMIC.AXIAL;CAX Y TAPG 16V 103N-T	
C413	61417-109-140	C-CERAMIC.HK;CK45F TAPG 50V 103-Z	
C414	61417-109-140	C-CERAMIC.HK;CK45F TAPG 50V 103-Z	
C415	61407-117-104	C-CERAMIC.AXIAL;CAX Y TAPG 16V 103N-T	
C416	61417-109-140	C-CERAMIC.HK;CK45F TAPG 50V 103-Z	
C417	61417-109-140	C-CERAMIC.HK;CK45F TAPG 50V 103-Z	
C418	61407-117-100	C-CERAMIC.AXIAL;CAX SL TAPG 50V 100-J	
C419	61637-204-470	C-ELEC;CEAP 16V 47M SA(5X11)	
C420	61407-117-104	C-CERAMIC.AXIAL;CAX Y TAPG 16V 103N-T	
C421	61637-204-470	C-ELEC;CEAP 16V 47M SA(5X11)	
C422	61617-408-479	C-ELEC;CEAP 50V 4.7M RSS(4X7)	

Loca.No	Part No	Description & Specification	Remark
C423	B1102-0125	C-FILM;CQ 982 P 50V T 104-J 40/85 ECQV1H104JZ3	
C424	61637-208-229	C-ELEC;CEAP 50V 2.2M SA (5X11)	
C425	61407-117-100	C-CERAMIC.AXIAL;CAX SL TAPG 50V 100-J	
C426	61507-121-491	C-POLYESTER;CQ921M TAPG 50V 183-J	
C427	61407-105-180	C-CERAMIC.TEMP;CC45 CH TAPG 50V 22-J	
C428	61617-404-220	C-ELEC;CEAP 16V 22M RSS(5X7)	
C429	61407-117-104	C-CERAMIC.AXIAL;CAX Y TAPG 16V 103N-T	
C430	61407-117-104	C-CERAMIC.AXIAL;CAX Y TAPG 16V 103N-T	
C431	61407-105-250	C-CERAMIC.TEMP;CC45 CH TAPG 50V 39-J	
C432	61617-408-479	C-ELEC;CEAP 50V 4.7M RSS(4X7)	
CA401	63054-401-823	COAXIAL-CABLE ASSY;SD-C123-14A FTZ	
CN401	B6010-1202	CONNECTOR-WAFER;TKC-A10X-A1 WHT TAIKO	
CN402	B6010-1202	CONNECTOR-WAFER;TKC-A10X-A1 WHT TAIKO	
D401	62169-406-482	DIODE;1N4148 SAMSUNG	
D402	62169-406-482	DIODE;1N4148 SAMSUNG	
D403	62169-406-482	DIODE;1N4148 SAMSUNG	
FL401	B1245-0008	FILTER-SAW;SAF38.9MZC80Z MULTI VIF	
FL402	64527-102-001	FILTER-CERAMIC TRAP;TPS 6.5MB TAPG	
FL403	64527-101-001	FILTER CERAMIC TRAP;TPS 5.5MB TAPG	
FL404	64527-103-001	FILTER CERAMIC;SFE 5.5MB TAPG	
FL405	64529-425-030	FILTER-CERAMIC;SFE 6.5MB	
IC401	B4012-0046	IC-LINEAR;TDA9800 DIP NEG DEMOD	
IC402	62119-401-370	IC;LA7920	
IC403	62119-501-561	IC-L;KA33V TAPG	
L401	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
L403	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
L404	62427-812-109	COIL-PEAKING;EL0606RA 1uH-K	
L405	62427-812-139	COIL-PEAKING;EL0606RA 1.3uH-K	
L406	62427-020-011	COIL PEAKING AXIAL;LAL02TB 100J TAPG	
L407	62427-020-390	COIL PEAKING AXIAL;LAL02TB 390J TAPG	
L408	62427-020-011	COIL PEAKING AXIAL;LAL02TB 100J TAPG	
L409	62427-812-270	COIL-PEAKING;EL0606RA 27uH-J	
L410	62427-020-229	COIL PEAKING AXIAL;LAL02TB 2R2J TAPG	
Q401	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q402	62137-103-380	TRANSISTOR;KSA 733-Y TAPG	
Q406	62137-702-010	TRANSISTOR;KTC 3197-AT(TAPG)	
Q407	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q408	62137-701-013	TRANSISTOR;KSR 1004 TAPG	
R401	61048-177-103	R-CARBON;RD 1/8 T 103-J	
R402	61048-177-432	R-CARBON;RD 1/8 T 432-J	
R403	61048-177-223	R-CARBON;RD 1/8 T 223-J	
R404	61048-177-103	R-CARBON;RD 1/8 T 103-J	
R405	61048-177-103	R-CARBON;RD 1/8 T 103-J	
R406	61048-177-103	R-CARBON;RD 1/8 T 103-J	
R407	61048-177-103	R-CARBON;RD 1/8 T 103-J	
R408	61048-177-513	R-CARBON;RD 1/8 T 513-J	
R409	61048-177-153	R-CARBON;RD 1/8 T 153-J	
R410	61048-177-471	R-CARBON;RD 1/8 T 471-J	
R411	61048-177-911	R-CARBON;RD 1/8 T 911-J	
R415	61048-177-104	R-CARBON;RD 1/8 T 104-J	
R416	61048-177-124	R-CARBON;RD 1/8 T 124-J	
R417	61048-177-101	R-CARBON;RD 1/8 T 101-J	
R418	61048-177-562	R-CARBON;RD 1/8 T 562-J	
R419	61048-177-391	R-CARBON;RD 1/8 T 391-J	
R420	61048-177-390	R-CARBON;RD 1/8 T 390-J	
R421	61048-177-152	R-CARBON;RD 1/8 T 152-J	
R422	61048-177-271	R-CARBON;RD 1/8 T 271-J	
R423	61048-177-511	R-CARBON;RD 1/8 T 511-J	
R424	61048-177-151	R-CARBON;RD 1/8 T 151-J	
R425	61048-177-181	R-CARBON;RD 1/8 T 181-J	
R426	61048-177-472	R-CARBON;RD 1/8 T 472-J	
R427	61048-177-272	R-CARBON;RD 1/8 T 272-J	
R428	61048-177-821	R-CARBON;RD 1/8 T 821-J	

Loca No	Part No	Description & Specification	Remark
R429	61048-177-222	R-CARBON;RD 1/8 T 222-J	
R431	61048-177-331	R-CARBON;RD 1/8 T 331-J	
R432	61048-177-201	R-CARBON;RD 1/8 T 201-J	
R433	61048-177-223	R-CARBON;RD 1/8 T 223-J	
R434	61048-177-223	R-CARBON;RD 1/8 T 223-J	
R436	61048-177-563	R-CARBON;RD 1/8 T 563-J	
R437	61048-177-113	R-CARBON;RD 1/8 T 113-J	
R438	61048-177-335	R-CARBON;RD 1/8 T 335-J	
R439	61048-177-335	R-CARBON;RD 1/8 T 335-J	
R440	61048-177-335	R-CARBON;RD 1/8 T 335-J	
R441	61048-177-103	R-CARBON;RD 1/8 T 103-J	
R442	61048-177-334	R-CARBON;RD 1/8 T 334-J	
R535	61048-177-561	R-CARBON;RD 1/8 T 561-J	
TL401	A1197-0004	TRANS-DET;9MM 0UH BLK 8PF 77.9MHZ M7T1 STICK	
U401	67189-0042-00	CONVERTER-RF;RMUS73655EE	
U402	B1292-0064	TUNER;TEKE1-080A 83CH PAL VS	
VR401	B1054-0227	VR-SEMI;EVN-CYAA03-B14 10KB CARBON T TOP 2.5W 50V	
670		ASSY TIMER	
	69573-302-207	SV-30K/SVR-30D	
	69573-302-204	SV-40K/SVR-40D	
	69573-302-211	SV-70K/SVR-70D	
	69573-302-206	SV-80K/SVR-80D	
C701	61407-101-320	C-CERAMIC.TEMP;CC45 SL TAPG 50V 82-J	
C702	A1100-0561	C-CERAMIC;CK OA Y 16V T 222-N	
C704	61617-404-101	C-ELEC;CEAP 16V 100M RSS(6.3X7)	
C705	61407-117-104	C-CERAMIC.AXIAL;CAX Y TAPG 16V 103N-T	
C706	61407-117-102	C-CERAMIC.AXIAL;CAX B TAPG 102K-T	
C707	61407-117-104	C-CERAMIC.AXIAL;CAX Y TAPG 16V 103N-T	
C708	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)	
C709	61637-508-470	C-ELEC;CEAP 50V 47M SG(6.3X11)	
C710	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)	
C711	61407-117-470	C-CERAMIC.AXIAL;CAX SL TAPG 50V 470-J	
C712	61407-117-470	C-CERAMIC.AXIAL;CAX SL TAPG 50V 470-J	
C713	61407-117-104	C-CERAMIC.AXIAL;CAX Y TAPG 16V 103N-T	
C715	61407-117-228	C-CERAMIC.AXIAL;CK OA F 25V 223Z/F 25V 223ZT	
C716	61617-404-100	C-ELEC;CEAP 16V 10M RSS(4X7)	
C717	61617-404-100	C-ELEC;CEAP 16V 10M RSS(4X7)	
C718	A1104-0608	C-ELEC;CE 04 -25/85 50V T 010-M SRE 3X5	
C719	61407-117-104	C-CERAMIC.AXIAL;CAX Y TAPG 16V 103N-T	
CN701	A6010-1365	CONNECTOR-WAFER;35234-2010 WHT MOLEX	
D706	62169-406-482	DIODE;1N4148 SAMSUNG	
D718	62169-406-482	DIODE;1N4148 SAMSUNG	
D719	62169-406-482	DIODE;1N4148 SAMSUNG	
D724	62169-406-482	DIODE;1N4148 SAMSUNG	
D731	62169-406-482	DIODE;1N4148 SAMSUNG	
D732	62169-406-482	DIODE;1N4148 SAMSUNG	
D733	62169-406-482	DIODE;1N4148 SAMSUNG	
D734	62169-406-482	DIODE;1N4148 SAMSUNG	
D735	62169-406-482	DIODE;1N4148 SAMSUNG	
D736	62169-406-482	DIODE;1N4148 SAMSUNG	
D737	62169-406-482	DIODE;1N4148 SAMSUNG	
D738	62169-406-482	DIODE;1N4148 SAMSUNG	
D739	62169-406-482	DIODE;1N4148 SAMSUNG	
D740	62169-406-482	DIODE;1N4148 SAMSUNG	
D741	62169-406-482	DIODE;1N4148 SAMSUNG	
D742	62169-406-482	DIODE;1N4148 SAMSUNG	
D743	62169-406-482	DIODE;1N4148 SAMSUNG	
DT701	A4153-0082	V.F.DISPLAY;8-MT-97GK SV-80Z	
IC701	67199-0249-00	MICOM;TMP47C415N-GB04 SV-140X	
JA701	A3040-0004	JACK-PIN;PI10 DSP-8805-03 YEL 3P	
JA702	A3040-0003	JACK-PIN;PI10 DSP-8805-03 WHT 3P	
L701	62427-020-330	COIL PEAKING.AXIAL;LAL02TB 330J TAPG	
L703	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
L704	66639-0003-00	FERRITE-BEAD INDUCTOR;NI-ZN FERRITE K150 BI3857	

Loca.No	Part No	Description & Specification	Remark
LD701	62309-110-340	LED;GL-3HD7/GL3HD8	
Q701	62137-701-013	TRANSISTOR;KSR 1004 TAPG	
R701	61048-177-750	R-CARBON;RD 1/8 T 750-J	
R702	61048-177-224	R-CARBON;RD 1/8 T 224-J	
R703	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R704	61048-177-473	R-CARBON;RD 1/8 T 473-J	
R705	61048-177-473	R-CARBON;RD 1/8 T 473-J	
R706	61048-177-473	R-CARBON;RD 1/8 T 473-J	
R707	61048-177-683	R-CARBON;RD 1/8 T 683-J	
R708	61048-177-683	R-CARBON;RD 1/8 T 683-J	
R710	61048-177-121	R-CARBON;RD 1/8 T 121-J	
R711	61048-177-103	R-CARBON;RD 1/8 T 103-J	
R712	61048-177-103	R-CARBON;RD 1/8 T 103-J	
R713	A1006-0795	R-METAL FILM;RM 1/4 T 101-J SFR25	
R714	A1006-0795	R-METAL FILM;RM 1/4 T 101-J SFR25	
R715	A1006-0819	R-METAL FILM;RM 1/4 T 6R8-J SFR25	
R716	A1006-0826	R-METAL FILM;RM 1/4 T 5R1-J SFR25	
R717	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R718	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R719	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R720	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R722	61048-177-103	R-CARBON;RD 1/8 T 103-J	
R750	61048-177-103	R-CARBON;RD 1/8 T 103-J	
RM701	A1294-0015	MODULE-REMOCON;GP1U781R/ASAN 38KHZ	
SW701	63519-073-020	SW-SLIDE;SSS323 GE011	
SW702	63519-073-020	SW-SLIDE;SSS323 GE011	
SW703	63599-016-070	SW-TACT;EVQ-QS2 05K	
SW704	63599-016-070	SW-TACT;EVQ-QS2 05K	
SW706	63599-016-070	SW-TACT;EVQ-QS2 05K	
SW707	63599-016-070	SW-TACT;EVQ-QS2 05K	
SW708	63599-016-070	SW-TACT;EVQ-QS2 05K	
SW709	63599-016-070	SW-TACT;EVQ-QS2 05K	
SW710	63599-016-070	SW-TACT;EVQ-QS2 05K	
SW711	63599-016-070	SW-TACT;EVQ-QS2 05K	
SW712	63599-016-070	SW-TACT;EVQ-QS2 05K	
SW713	63599-016-070	SW-TACT;EVQ-QS2 05K	
SW715	63599-016-070	SW-TACT;EVQ-QS2 05K	
SW716	63599-016-070	SW-TACT;EVQ-QS2 05K	
SW718	63599-016-070	SW-TACT;EVQ-QS2 05K	
SW719	63599-016-070	SW-TACT;EVQ-QS2 05K	
SW721	63599-016-070	SW-TACT;EVQ-QS2 05K	
VR701	B1052-0001	VR-ROTARY,BLOCK;RK16Y12S000NB-100KBX1	
X701	B1283-0036	RESONATOR-CERAMIC;8MHZ EFOEC8004T4 3/CN J TAPG	
ZD701	62169-403-832	DIODE-ZENER;UZ 3.6B	
		REMOCON ASSY	
	69099-633-254	SV-40K/SVR-40D	
	69099-633-251	SV-80K/SVR-70D	
	64043-0166-00	DOOR-BATTERY;ABS94HB T2 D/GRY NR-3346	
CT1	A1100-0009	C-CERAMIC,CHIP;CC 73 COG 50V T 101-J C2012 21C101J	
CT2	A1100-0009	C-CERAMIC,CHIP;CC 73 COG 50V T 101-J C2012 21C101J	
CT3	61637-208-479	C-ELEC;CEAP 50V 4.7M SA(5X11)	
IC1	A4002-0652	IC-MCU;KS51810-76 V-PAL QFP BULK	
LDT1	A4150-0168	LED-INFRARED;SI5312-H NTR 940NM/1.4V	
QT1	A4050-0140	TR-GENERAL,CHIP;2SC2412KR 200MW 100MA 100MHZ 50V S	
RT1	61079-917-010	R-CHIP;RH C2012 CS 010-J	
XT1	64539-102-311	CERAMIC RESONATOR;CSB455EBL/KBR455BKTL	
**********	**********	**********	****** ***

6. EXPLODED VIEW / PARTS LIST

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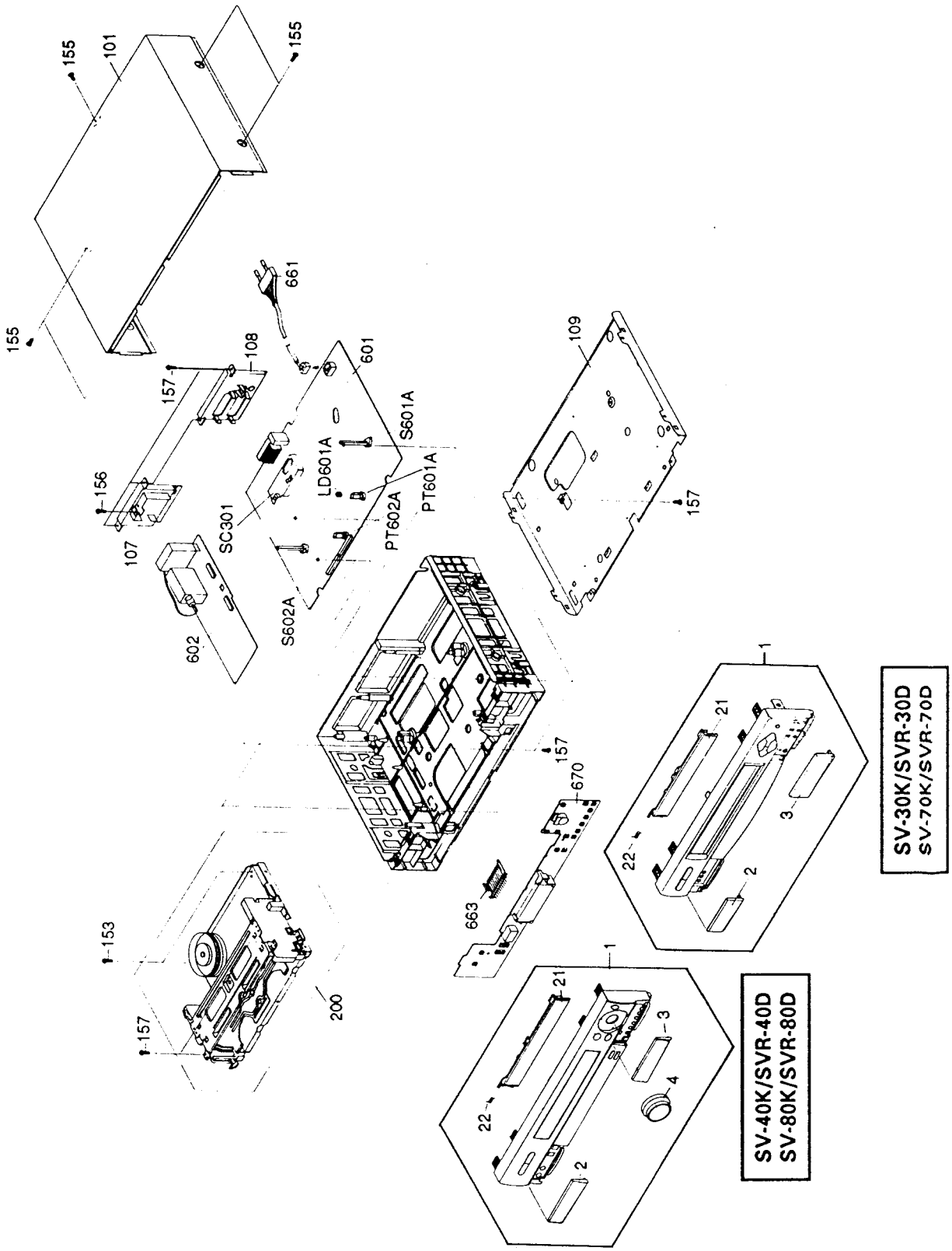
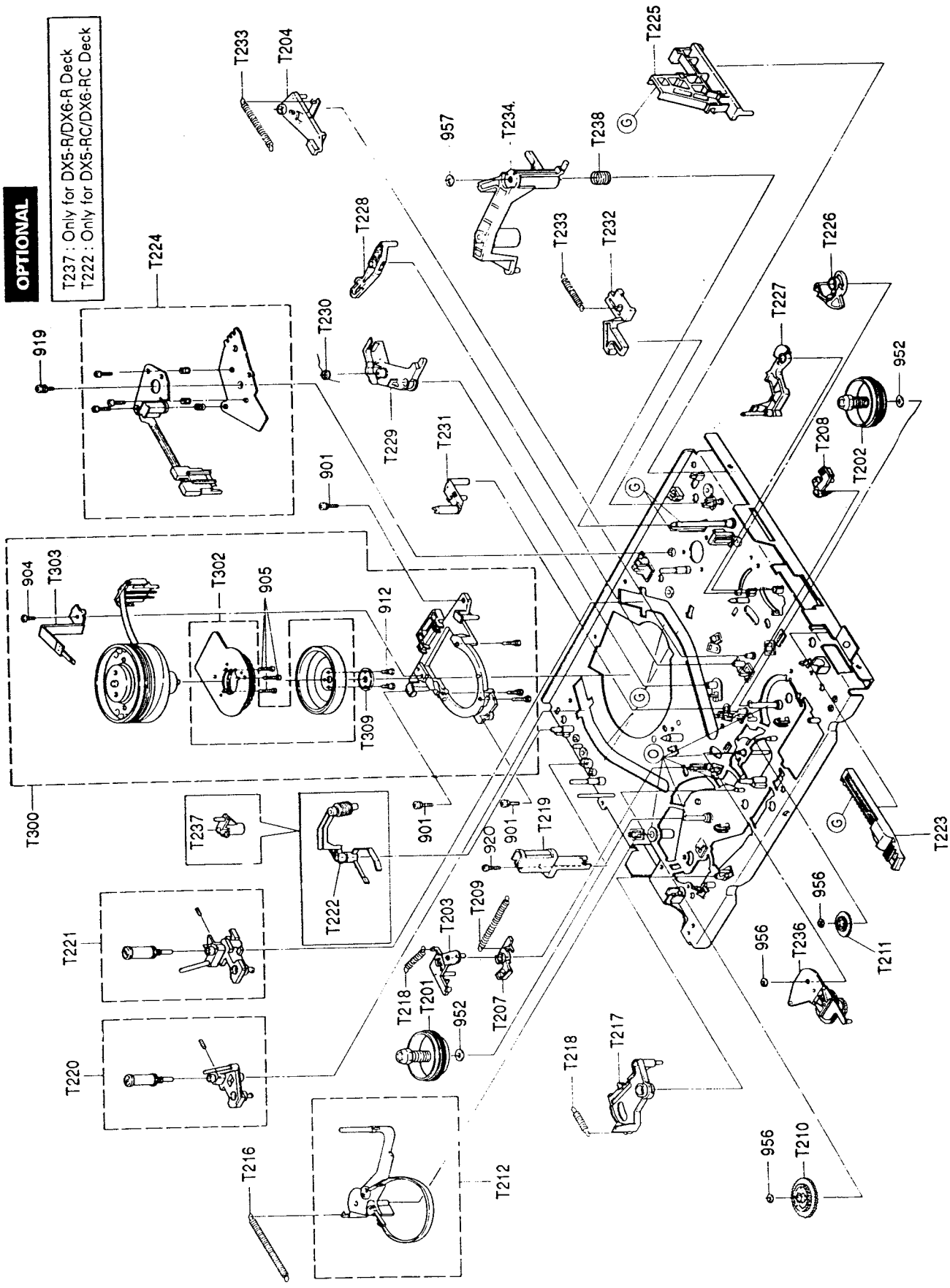
6-1.	INSTRUMENT ASSEMBLY	6-2
6-2.	MECHANICAL PARTS (TOP SIDE)	6-4
6-3.	MECHANICAL PARTS (BOTTOM SIDE)	6-6
6-4.	HOUSING ASSEMBLY	6-8

6-1. INSTRUMENT ASSEMBLY



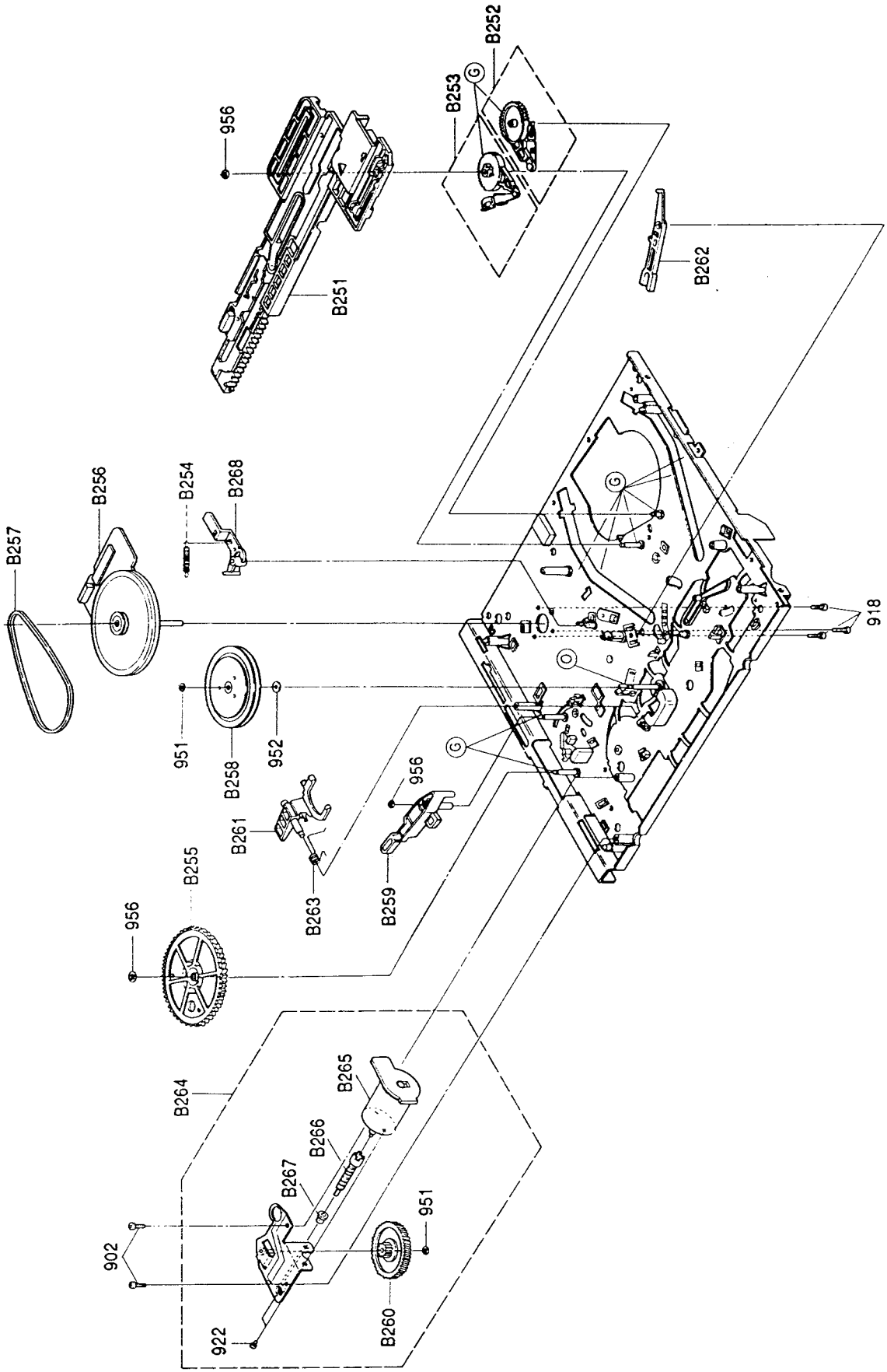
Loca.No	Part No	Description & Specification	Remark
1	69000-502-250	ASSY P/FRONT;HIPS94HB SVR-40D SV-40K	
2	64043-0197-01	DOOR-FRONT(L);ABS94HB T2.5 GRY SV-80Y/ZAMA	
3	64043-0198-06	DOOR-FRONT(R);HIPS94HB T2.5 GRY SVR-40D(SV-40K)	
4	64083-0497-00	KNOB-SHUTTLE;ABS94HB BLK SV-80Y	
21	64043-0172-23	DOOR-CASSETTE;ABS94HB T2.5 GRY SVR-40D(SV-40K)	
22	62724-0090-00	SPRING;SUS304 (GE/RCA)	
101	62002-0034-00	CABINET-TOP;PVC+SECC T0.75 M/GRY 47041 SV-80Z	
107	66009-0096-00	CONNECTOR BOARD-A(ASSY);HIPS94HB V-1 STEP-UP K	
108	66009-0098-00	CONNECTOR BOARD-B(ASSY);HIPS94HB V-1 STEP-UP K	
109	63312-0149-00	COVER-BOTTOM;SPG T0.5 NTR SV-80X	
153	67158-240-121	SCREW BH;2-4•12 FE FZY	
155	67158-240-163	SCREW-TAP BH;2-4X16 FE FZB	
156	60504-0046-00	SCREW-TAP TITE;PWH + TC M3 L6 SWRCH18A YEL ZPC3	
157	60504-0040-00	SCREW-TAP TITE;BH + TB 3 L12 SWRCH18A ZPC3 YEL	
200	DX5-R	DECK ASSY;V-1 DECK	
601	69557-302-233	ASSY MAIN;SV-30K/SVR-30D	
	69557-302-223	ASSY MAIN;SV-40K/SVR-40D	
	69557-302-232	ASSY MAIN;SV-70K/SVR-70D	
	69557-302-226	ASSY MAIN;SV-80K/SVR-80D	
602	69529-302-203	ASSY SUB;SV-40K/BWX	
661	A6006-0272	POWER-CORD;CP2 KKP-419K FTZ 1.932MT YH396 BLK 250V	
663	A6010-1508	CONNECTOR-WAFER;35329-2010 WHT MOLEX STICK	
670	69573-302-207	ASSY TIMER;SV-30K/SVR-30D	
	69573-302-204	ASSY TIMER;SV-40K/SVR-40D	
	69573-302-211	ASSY TIMER;SV-70K/SVR-70D	
	69573-302-206	ASSY TIMER;SV-80K/SVR-80D	
LD601A	63323-0313-00	HOLDER-LED;POM	
PT601A	63323-0312-00	HOLDER-PHOTO;POM	
PT602A	63323-0312-00	HOLDER-PHOTO;POM	
S601A	63322-0311-00	HOLDER-TR;POM	
S602A	63322-0311-00	HOLDER-TR;POM	
SC301	62073-0258-00	SHIELD-CASE P/AMP(ASSY);3516ET T0.3 SIL SV-80Z	

6-2. MECHANICAL PARTS (TOP SIDE)



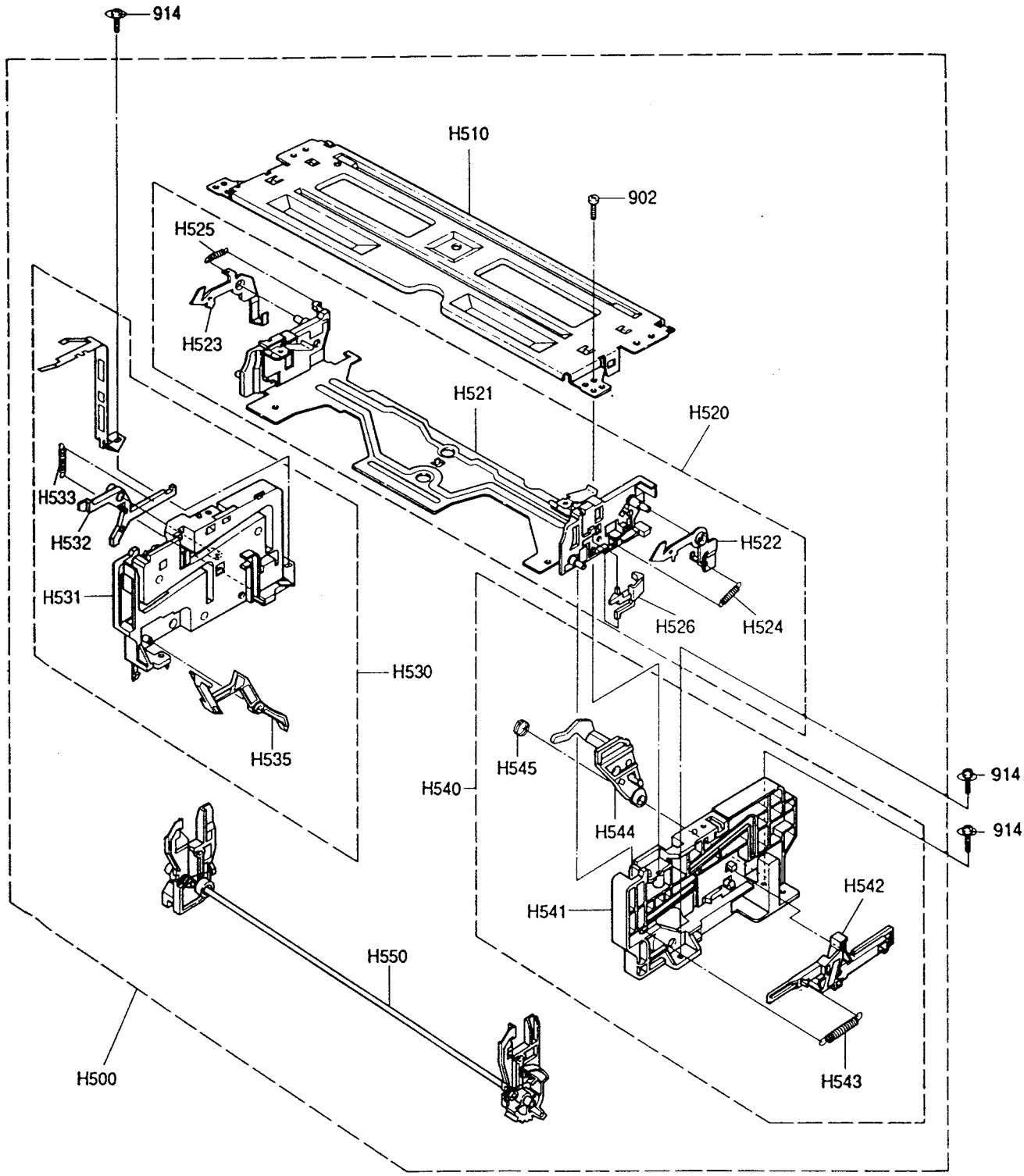
Loca.No	Part No	Description & Specification	Remark
901	60509-0064-00	SCREW-MACHINE;BH FP M3 L8 FE FZY WS	
904	67106-330-061	SCREW-PH;M3X6 TAP TITE	
905	60509-0103-00	SCREW-MACHINE;PH FP M2.6X10 SWRCH10A GLD	
912	67904-604-710	SCREW-DAMPER;M2.0X7.0 SWOM 10(MFZN2-C)	
919	60504-0102-00	SCREW-MACHINE;BH WLP UP M3X8 SWRCH10A YEL	
920	60504-0121-00	SCREW-TAPPING;BH(HEAD-M3) + B M2.6 L12 SWRCH18A YE	
952	67304-103-410	WASHER-PLAIN;3.2X6X0.5 POLYSLIDER	
956	67334-601-830	SLIT WASHER;2.5X9X0.5(RED)	
957	60534-0035-00	WASHER-SLIT;POLY T0.5 OD3.5 ID9	
T201	61574-0023-00	REEL-DISK L ASSY;POM D30 X-5	
T202	61574-0021-00	REEL-DISK R ASSY;POM D X-5	
T203	62613-0013-00	BRAKE-SUB L;PBT X-5	
T204	62614-0011-00	BRAKE-SUB R ASSY;PBT LUPOX EG 5000H X-5	
T207	62614-0009-00	BRAKE-MAIN L ASSY;PBT X-5	
T208	62614-0007-00	BRAKE-MAIN R ASSY;PBT X-5	
T209	62724-0208-00	SPRING-BRAKE MAIN;ES SUS304WPB PT0.35 ID2.8 OD4.2	
T210	61474-0099-00	GEAR-RELAY S ASSY;PEBAX M0.5 M48 SP	
T211	61474-0095-00	GEAR-RELAY(T);PEBAX#6333 M0.5 Z41 SP X-5	
T212	61543-0071-00	ARM-TENSION FULL ASSY;X-5	
T216	62724-0215-00	SPRING-TENSION;ES SUS304WPB PI0.35 ID2.1 L33.25	
T217	61533-0098-00	LEVER-REC S/W;PBT	
T218	62724-0217-00	SPRING-REC S/W;ES SUS304 PI0.23 D3.5 L14.8	
T219	66603-0005-00	MAGNET-F/E HEAD;X-5	
T220	61643-0027-00	SLIDER-G/R ASSY(S);X-5	
T221	61643-0029-00	SLIDER-G/R ASSY(T);X-5	
T222	69000-292-017	ASSY A/C HEAD;DX5-R	(OPTIONAL)
T223	61642-0022-00	SLIDER-RACK HOUSING;POM T10.5 BLK	
T224	66603-0006-00	MAGNET-ACE HEAD ALL(ASSY);X-5	
T225	61642-0024-00	SLIDER-PINCH;POM T2 NAT	
T226	61533-0096-00	LEVER-REVIEW;ZYTEL T3.8 BLK	
T227	61544-0073-00	ARM-REVIEW ASSY;PPS X-5	
T228	61533-0094-00	LEVER-PINCH CAM;PBT6300T T5 X-5	
T229	61532-0093-00	LEVER-PINCH COMP;PBT T13.3 X-5	
T230	62724-0212-00	SPRING-PINCH(COMP);TS SWPB PI1.0 ID6 OD8	
T231	62713-0054-00	PRISM-LED;PMMA D5 IF-850	
T232	61643-0025-00	SLIDER-PUSH;LUPOX 2150 T2 NTR	
T233	62724-0216-00	SPRING-SLIDE PUSH;ES SUS304WPB PI0.55 D3.55 L24.75	
T234	67172-0174-00	UNIT-PINCH ROLLER(ASSY);X-5	
T236	61603-0006-00	IDLER-ASSY;POM X-5	
T237	63383-0031-00	STOPPER-TAPE;POM T2 NAT X-5 DECK	(OPTIONAL)
T300	69020-124-059	CYLINDER ASSY;CX5-D4P/DLC SV-70K/80K/SVR-70D/80D	
	69020-124-057	CYLINDER ASSY;CX5-S2P/DLC SV-30K/40K/SVR-30D/40D	
T302	66823-0061-00	MOTOR-CYLINDER;E20XL03	
T309	63344-0002-00	RETAINER-RUBBER(ASSY);SECC+SILICON	
T303	67084-0076-00	HEAD-BRUSH(ASSY);SECC20/20+CARBON	

6-3. MECHANICAL PARTS (BOTTOM SIDE)



Loca.No	Part No	Description & Specification	Remark
902	60509-0063-00	SCREW-TAPPING;BH B M3 L8 FE FZY	
918	60504-0120-00	SCREW-TAP TITE;BH + B PI2.6 L7 SWRCH18A YEL X-5	
922	67008-130-171	SCREW PH;+M3X3 FE FZY	
951	67334-600-310	WASHER SLIT;PI2.5XPI5XT0.5	
952	67304-103-410	WASHER-PLAIN;3.2X6X0.5 POLYSLIDER	
956	67334-601-830	SLIT WASHER;2.5X9X0.5(RED)	
B251	61641-0023-00	SLIDER-MAIN;PBT2002K T12.4 NAT	
B252	61473-0107-00	GEAR-LOADING L ASSY;X-5	
B253	61473-0105-00	GEAR-LOADING R ASSY;X-5	
B254	62724-0211-00	SPRING-BRAKE CAPSTAN;ES SUS304WPB PI0.4 ID1.7 OD2.	
B255	61472-0104-00	GEAR-MASTER;LUPOXEG5000H M1 Z60 SP NAT	
B256	66823-0059-00	MOTOR-D.D CAPSTAN;F2QTB04	
B257	61494-0009-00	BELT-CAPSTAN;CY-65 FR W2 T2 L88.6	
B258	61453-0003-00	CLUTCH-ASSY	
B259	61533-0095-00	LEVER-SLIDER PINCH;PBT T4 NAT	
B260	61473-0102-00	GEAR-WORMWHEEL;POM M0.55 Z57 SP NAT	
B261	61533-0090-00	LEVER-SHIFT;PBT T2.5	
B262	61533-0091-00	LEVER-IDLER CHANGE;PBT T3.3	
B263	62724-0207-00	SPRING-LEVER SHIFT;TS SUS304WPB PI0.7 ID5.2 OD6.6	
B264	67172-0173-00	UNIT-LOADING(ASSY);X-5	
B265	66823-0060-00	MOTOR-LOADING ASSY;POM+RF370C X-5	
B266	61474-0103-00	GEAR-WORM LOADING;PBT M0.55 WO NAT	
B267	63324-0299-00	HOLDER-SHAFT;POM NAT	
B268	62614-0014-00	BRAKE-CAPSTAN ASSY;POM X-5	

6-4. HOUSING ASSEMBLY



Loca.No	Part No	Description & Specification	Remark
902	60509-0063-00	SCREW-TAPPING;BH B M3 L8 FE FZY	
914	60504-0128-00	SCREW-TAP TITE;PWH + S M3 L8 SWCH18 YEL	
H500	62052-0014-00	HOUSING-ASSY;X5FL2326A X-5	
H510	62202-0103-00	CHASSIS-UPPER;SECC T1.0 NAT X-5	
H520	63322-0317-00	HOLDER-CASSETTE(ASSY);SECC X5FL0810A X-5	
H521	63321-0314-00	HOLDER-CASSETTE;SECC NAT 1/8H HRB 50	
H522	61533-0102-00	LEVER-LOCK(R);SECC T1.2	
H523	61533-0104-00	LEVER-LOCK(L);SECC T1.2	
H524	62724-0220-00	SPRING-LEVER LOCK;ES SUS304WPB P10.2 ID2.6 OD3.0	
H525	62724-0220-00	SPRING-LEVER LOCK;ES SUS304WPB P10.2 ID2.6 OD3.0	
H526	61533-0103-00	LEVER-KEY CASSETTE;POM(LUCEL N109-LD) NAT T2.5	
H530	62203-0105-00	CHASSIS-SIDE "L"(ASSY);ABS X5FL0505A X-5	
H531	62201-0102-00	CHASSIS-SIDE "L";ABS(HF-380) T10 BLK X-5	
H532	61532-0101-00	LEVER-LIGHT SHUTTER;POM(LUCEL N109-LD) BLK T2.5	
H533	62724-0219-00	SPRING-LIGHT SHUTTER;ES SUS304WPB P10.2 ID2.6 OD3.	
H535	61533-0100-00	LEVER-DOOR;POM(LUCEL N109P-LD) BLK T5	
H540	62203-0104-00	CHASSIS-SIDE "R"(ASSY);ABS X5FL0505A X-5	
H541	62201-0101-00	CHASSIS-SIDE "R";ABS(HF-380) T10 BLK X-5	
H542	61642-0032-00	SLIDER-DAMPER;POM(LUCEL N109-LD) T4 BLK	
H543	62724-0218-00	SPRING-SLIDE DAMPER;ES SUS304WPB P10.4 ID3.8 OD4.6	
H544	61533-0099-00	LEVER-LID OPENER;POM(LUCEL N109-LD) NAT T5	
H545	62724-0222-00	SPRING-LID OPENER;TS SWPB P10.55 ID8.9 OD10	
H550	61403-0073-00	SHAFT-ARM(ASSY);SUM24L X5FL0405A X-5	

7. ELECTRICAL ADJUSTMENT

7-1. PREPARATION

Electrical adjustments are required after replacing circuit components and certain mechanical parts.
It is important to perform these adjustment only after all repairs and replacements have been completed. Also, do not attempt these adjustments unless the proper equipment is available.

7-1-1 Required Test Equipment

1. Color Television or Monitor.
2. Oscilloscope : Wide-band, dual-trace, triggered delayed sweep.
3. DC Voltmeter.
4. TV CH Generator.
5. Attenuator.
6. Recording tape (Blank tape).
7. Pattern Generator : PAL color bar. 100% White.

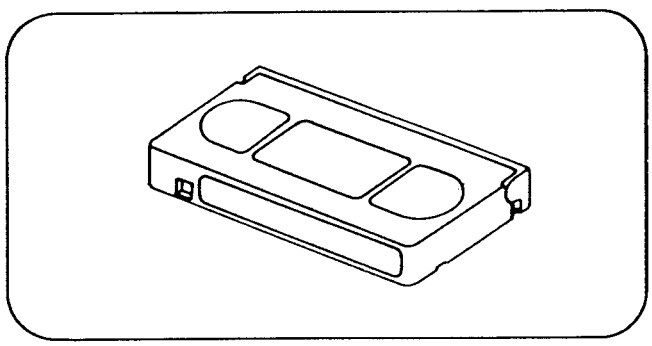


Fig. 1 Alignment Tape

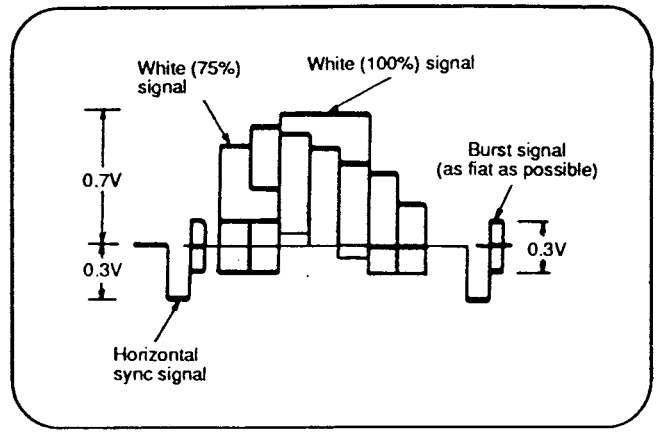


Fig. 2 Color bar signal of pattern generator

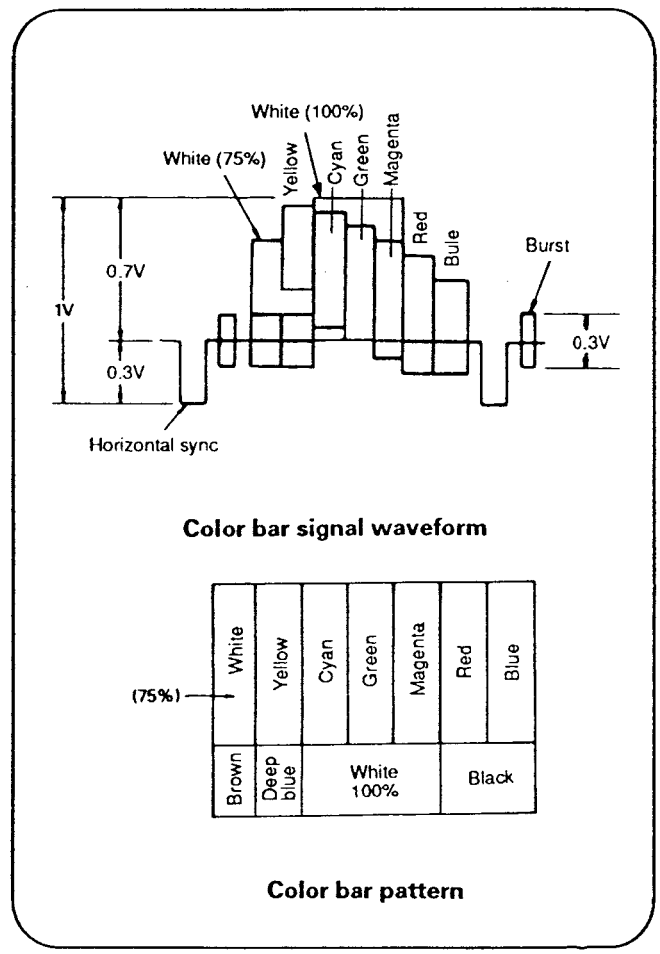
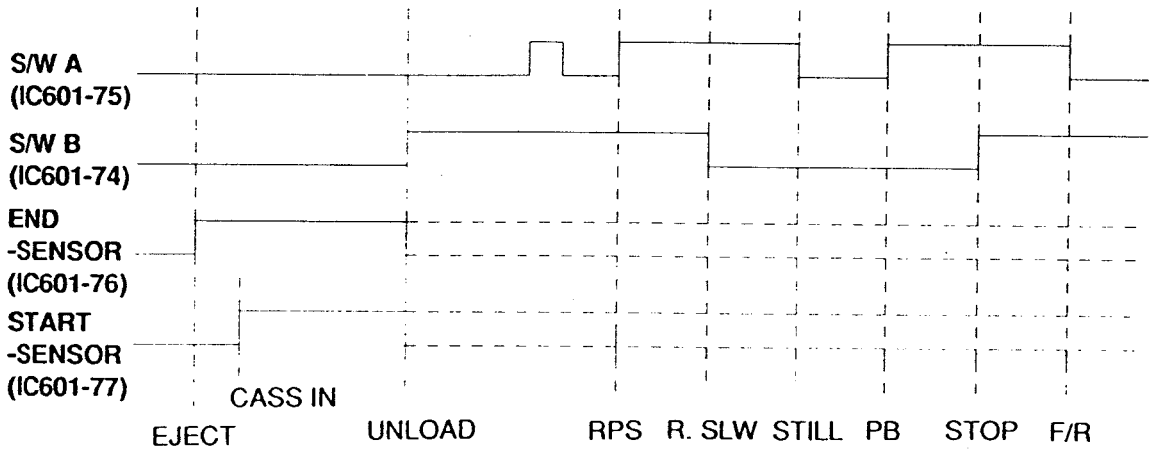


Fig. 3 Color bar signal of alignment tape (75% Color Bars)

7-2. TIMING CHART OF PROGRAM S/W



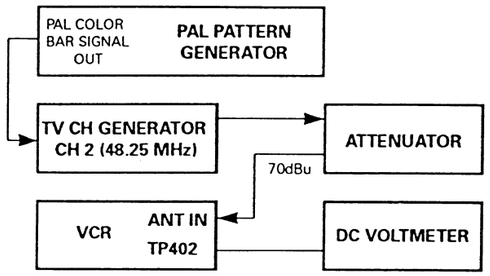
POSITION	PROGRAM S/W (SW601)				ACTION MODE
	E/S	S/S	S/W A	S/W B	
EJECT	L	L	L	L	EJECT
CASS IN	H	L H	L	L	CASS IN
UNLOAD	-	-	L	L H	UNLOAD
R. PS	-	-	L H	H	R. PS, Z-R. PS
R. SLOW	-	-	H	H L	PINCH ROLLER OFF POSITION
STILL	-	-	H L	L	STILL, SLOW, F-ADV
PLAY	-	-	L H	L	PB, T-STOP, REC, PAUSE, F. PS, Z-FPS
STOP	-	-	H	L H	STOP, POWER OFF
FF/REW	-	-	H L	H	FF, REW

7-3. SERVO & VIDEO SECTION

STEP	ADJUSTMENT ITEM
1.	MODE and INPUT SIGNAL/ALIGNMENT TAPE
2.	TEST POINT and ADJ. part
3.	RESULT & REMARKS

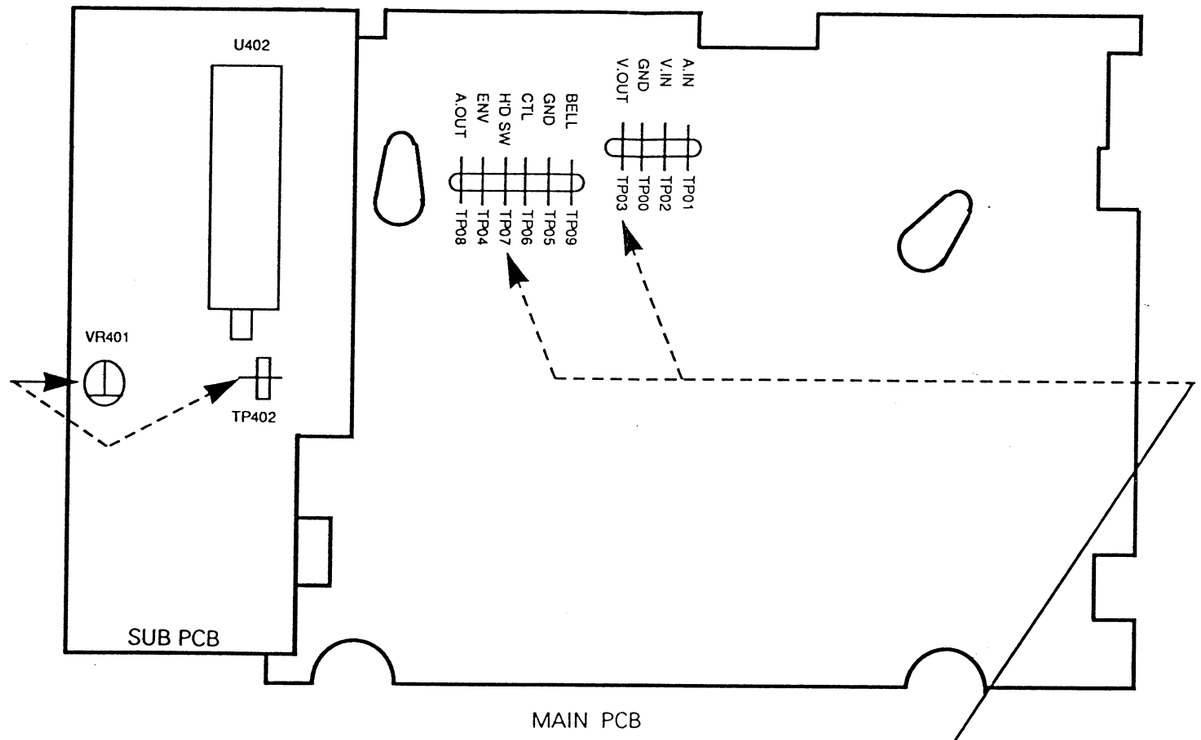
ADJ. part
Test Point

*** Composition for RF AGC Adjustment**



2 RF AGC

1. "E-E" (stop mode), RF signal.
2. TP402 & VR401.
3. • Apply PAL color bar signal to the video input terminal of the TV channel generator and set channel selector to CH 2 (48.25 MHz).
   • Adjust the point signal level so that the output of attenuator is 70dBu.
   • Apply the output of attenuator to the ANT IN terminal of VCR.
   • Set the channel of VCR to CH 2.
   • Connect DC voltmeter to TP402.
   • Adjust VR401 for DC 4.2 ± 0.1V.



MAIN PCB

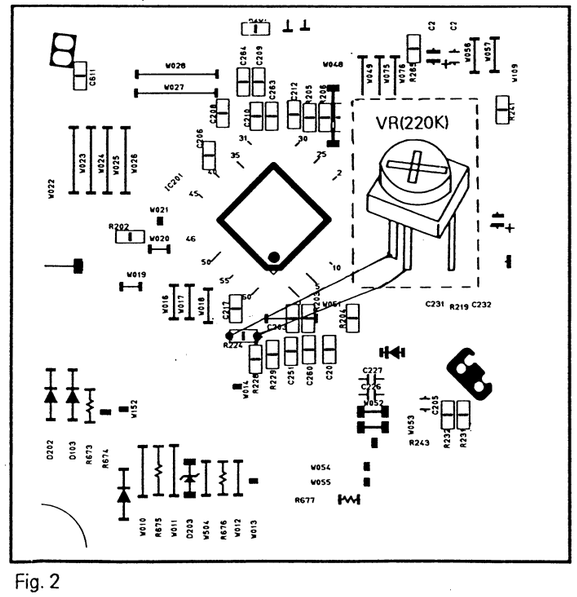


Fig. 2

1 HEAD SWITCHING POINT

(If the remote control (part no. : 69099-633-252) is available)

- Press the **"3"** button and the **"INPUT"** button simultaneously. This will automatically position the H'd S/W at 6.5H ± 0.5H.

(If the remote control is not avilable)

1. Remove the R224(chip) (See Fig. 2).
2. Install VR(220K) to the solder land of R224 (See Fig. 2).
3. Play back the lion pattern tape (7KHz).
4. Connect CH1 of oscilloscope to TP07 (H'd s/w) and CH2 to TP03 (video out).
5. Adjust VR(220K) so that the switching point is positioned at 6.5H ± 0.5H (See Fig. 1).
6. When the adjustment is complete, remove the VR(220K) and measure its value using a multimeter. Install a fixed resistor which has the measured value and install it in place of R224.

NOTE :
1) If a chip resistor is not available, install on axial resistor in place of R224 (See Fig. 2).
At this time R224 chip resistor should be removed.
2) If measured value is 1.7K installing a 1.5K or 2K replacement is OK.

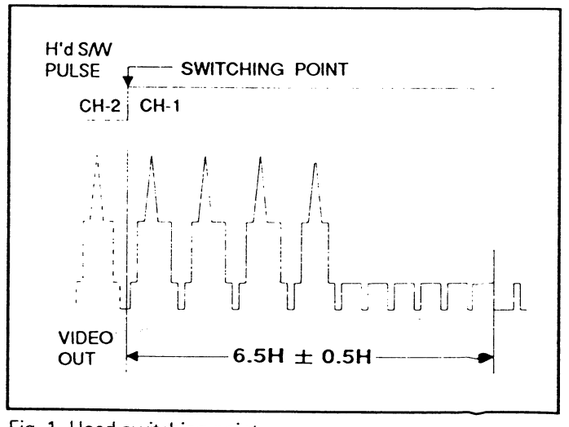


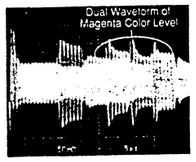
Fig. 1 Head switching point

7-4. SECAM SECTION

STEP	ADJUSTMENT ITEM
1. MODE and INPUT SIGNAL/ALIGNMENT TAPE 2. TEST POINT and ADJ. part 3. RESULT & REMARKS	ADJ. part Test Point

1 REC ANTI-BELL

1. SECAM color bar signal (LINE or AV).
2. TP09 (Main PCB) & VR3S01 (Main PCB).
3. * Connect an oscilloscope CH-1 to TP09.
   * Adjust VR3S01 so that the CH1 of the magenta color level are same.



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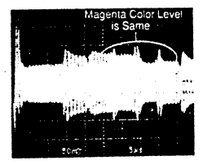

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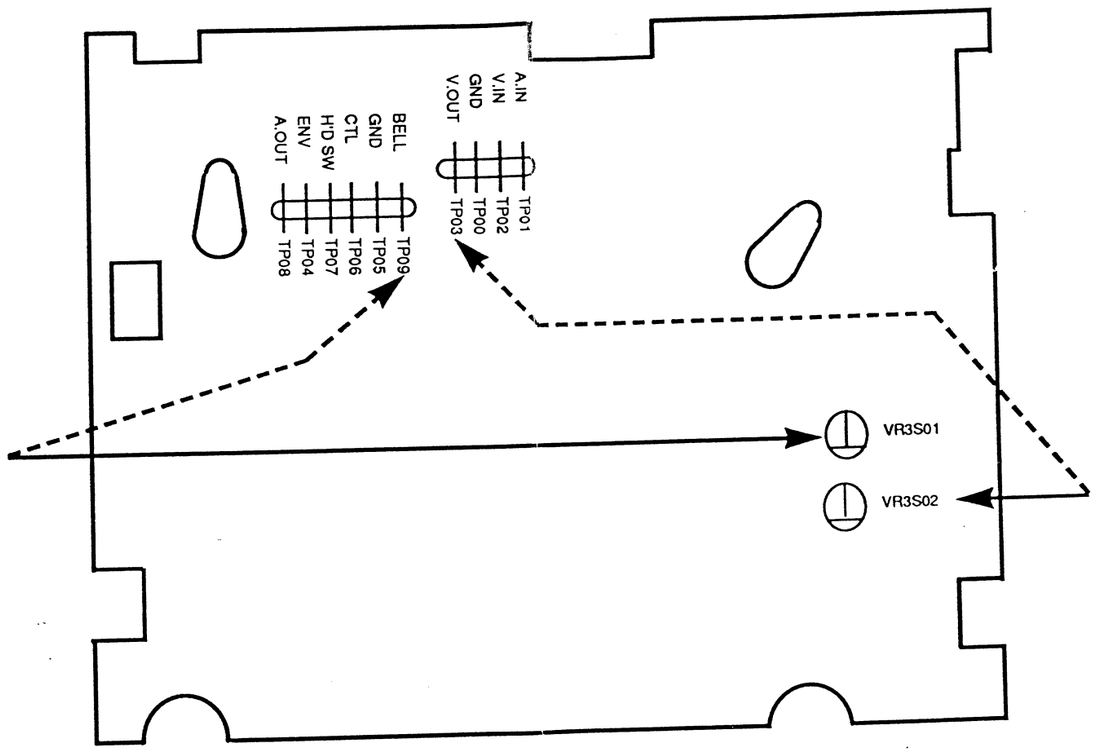
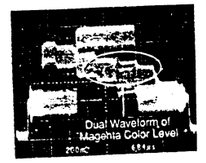


MAIN PCB

2 PB ANTI-BELL

1. "PB", Alignment tape SECAM color bar.
2. TP03 (Main PCB) & VR3S02 (Main PCB).
3. * Connect an oscilloscope CH-1 to TP03.
   * Adjust VR3S02 so that the magenta of color in 100% white level do not make a "Doubling Picture".



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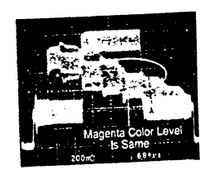

(Good)

8. P.C.BOARDS

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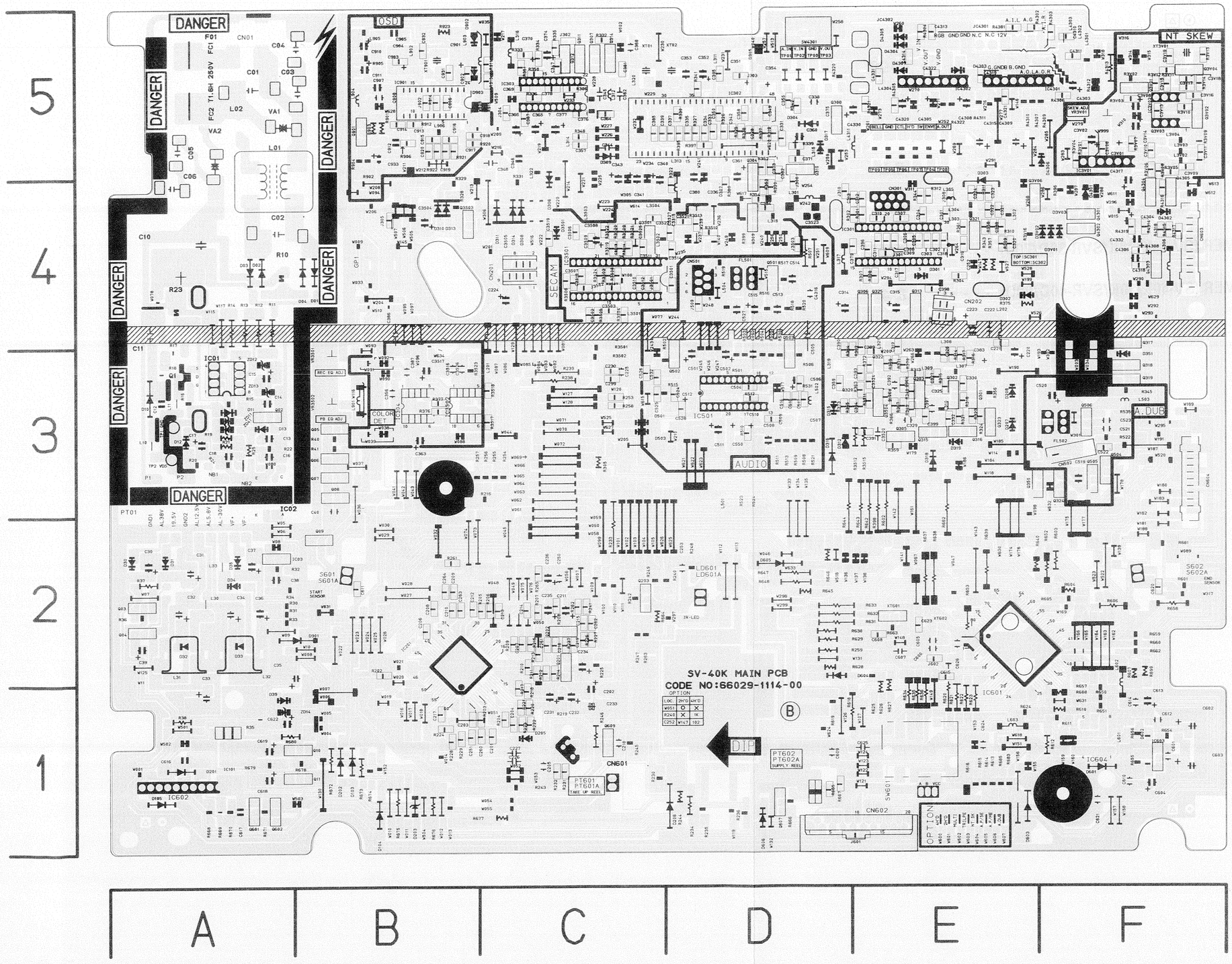
8-4.	FUNCTION-TIMER (SV-40K/80K/SVR-40D/80D) ------	8-4

8-1. MAIN

: CHIP PARTS



LOCATION	COORDINATES
CN01	5-A
CN201	4-C
CN202	4-E
CN301	4-E
CN501	4-D
CN502	3-F
CN601	1-C
CN602	1-E
CN603	3-F
CN604	4-F
IC01	3-A
IC02	3-A
IC101	1-A
IC201	1-B
IC301	4-E
IC302	5-D
IC303	5-C
IC304	3-B
IC3S01	4-C
IC3S02	3-B
IC4301	5-E
IC4302	5-E
IC501	3-D
IC601	1-B
IC602	1-A
IC603	1-F
IC604	1-E
IC901	5-B
PT601	1-C
PT602	1-D
S601	2-B
S602	2-F
VR401	4-F
VR3S01	3-B
VR3S02	3-B
JC4301	5-E
Q1	3-A
Q02	3-A
Q03	2-A
Q04	2-A
Q05	3-B
Q06	3-B
Q07	3-B
Q08	3-B
Q09	2-B
Q10	1-A
Q11	2-C
Q201	2-C
Q202	2-C
Q203	2-C

LOCATION	COORDINATES
Q301	3-E
Q302	3-E
Q303	3-E
Q304	4-D
Q305	3-E
Q306	4-E
Q307	5-C
Q308	5-D
Q309	4-D
Q310	4-D
Q311	5-C
Q312	5-C
Q313	4-E
Q314	5-C
Q315	3-E
Q316	3-E
Q317	3-F
Q318	3-F
Q319	3-F
Q320	3-D
Q321	4-E
Q322	3-E
Q323	3-E
Q324	3-E
Q325	4-E
Q3S01	4-C
Q3S03	4-B
Q3S04	3-E
Q3V01	5-F
Q3V02	5-F
Q3V03	5-F
Q3V04	5-F
Q3V06	5-F
Q4301	4-F
Q4302	4-F
Q4303	4-F
Q4304	4-F
Q4305	4-F
Q501	4-D
Q502	3-D
Q503	3-D
Q504	3-F
Q505	3-F
Q506	3-F
Q601	1-A
Q602	1-A
Q607	1-C
Q609	2-D
Q901	5-B

9. BLOCK DIAGRAMS

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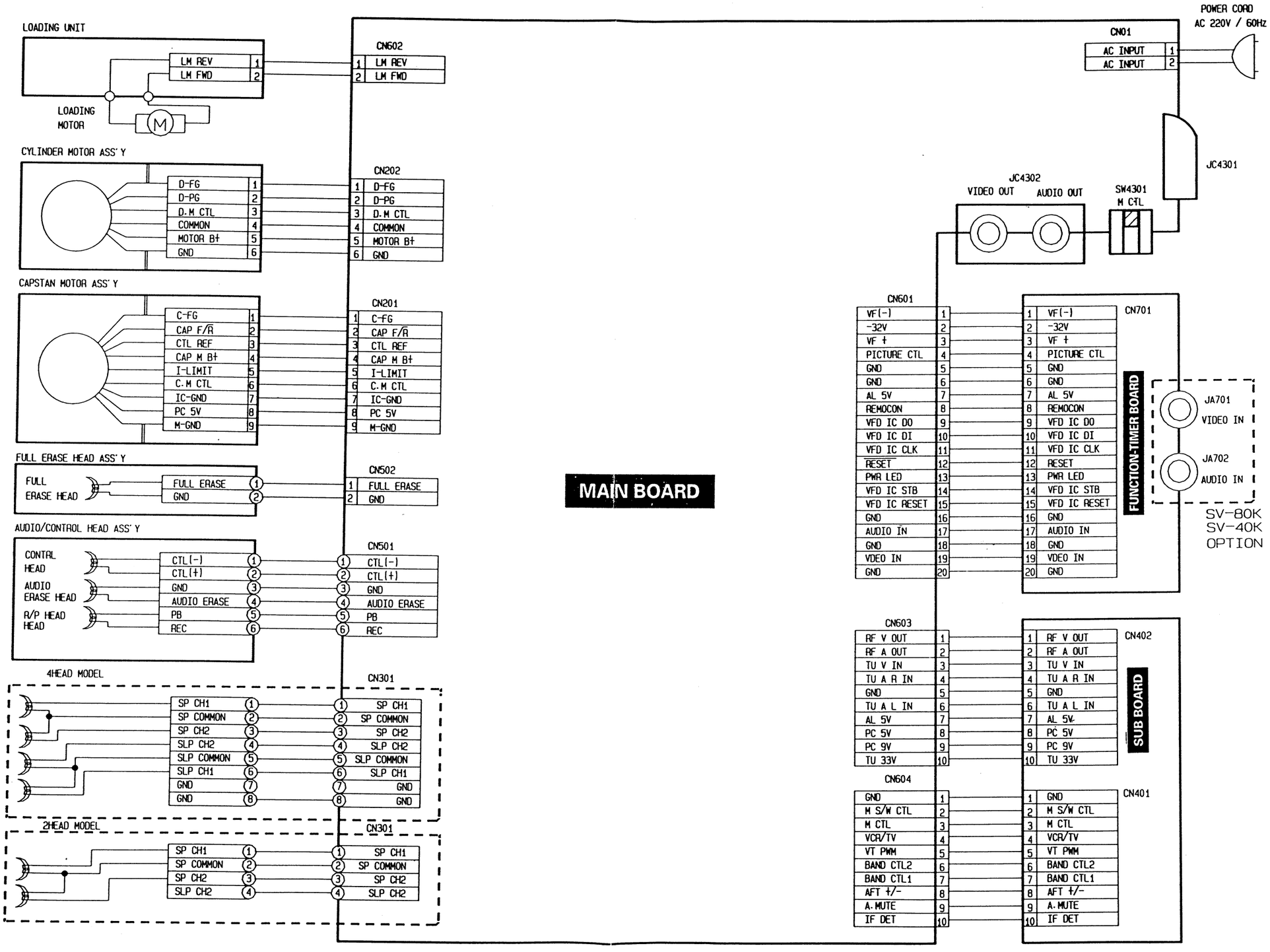
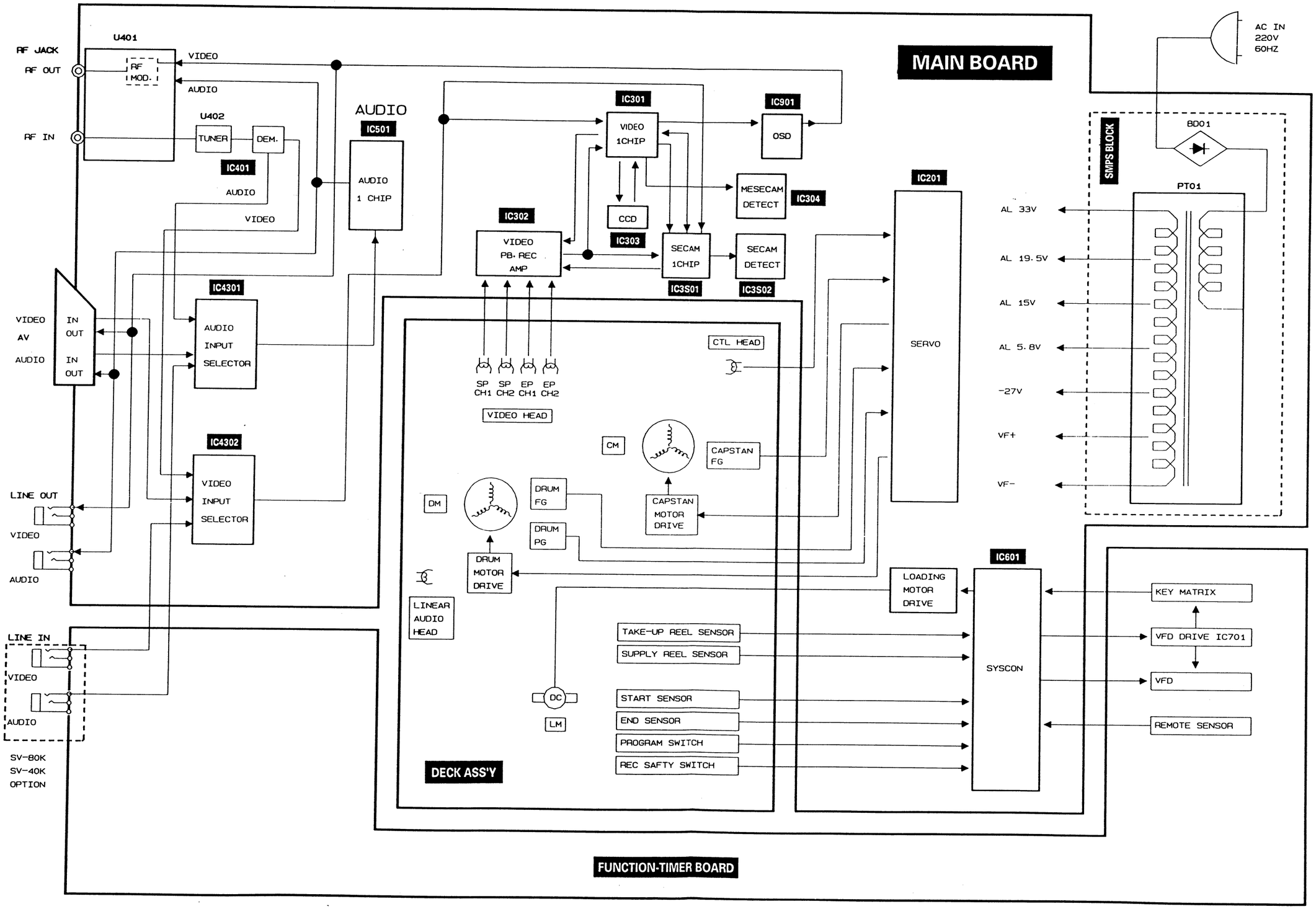
9-4.	VIDEO/PRE-AMP	9-5
9-5.	O.S.D	9-6
9-6.	FUNCTION-TIMER	9-6

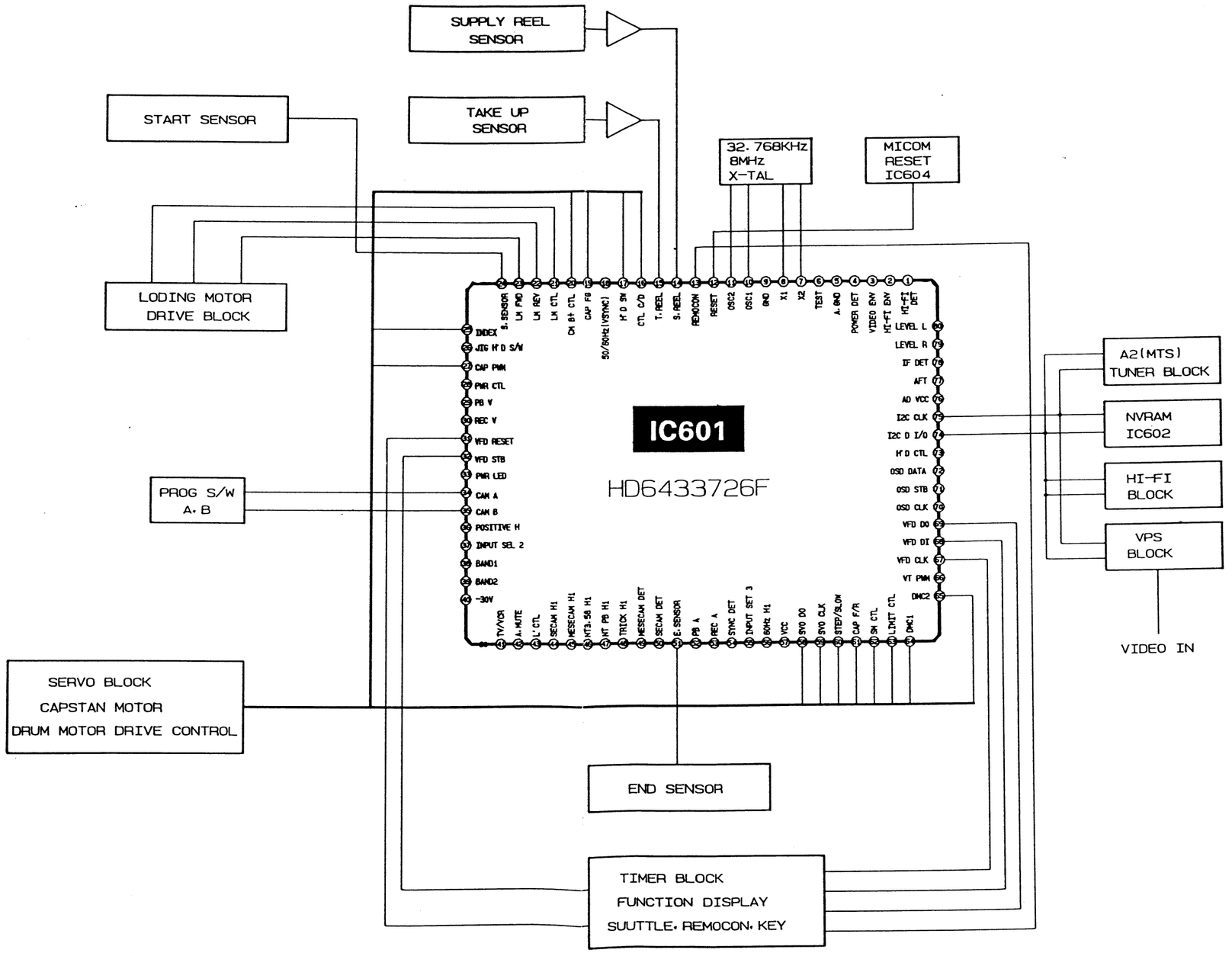
9-1. TOTAL WIRING DIAGRAM



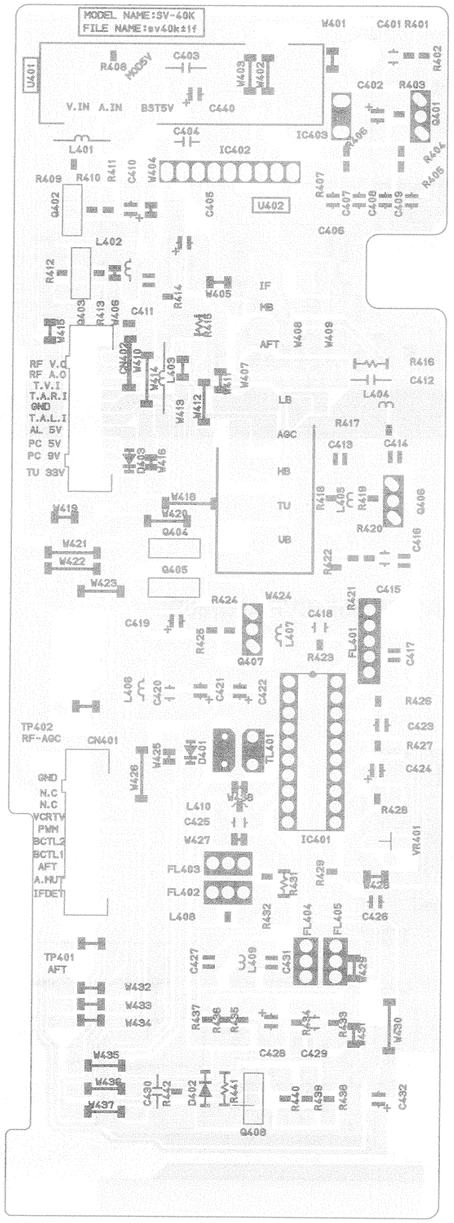
9-2. OVERALL BLOCK DIAGRAM



9-3. SYSTEM COTROL



8-2. SUB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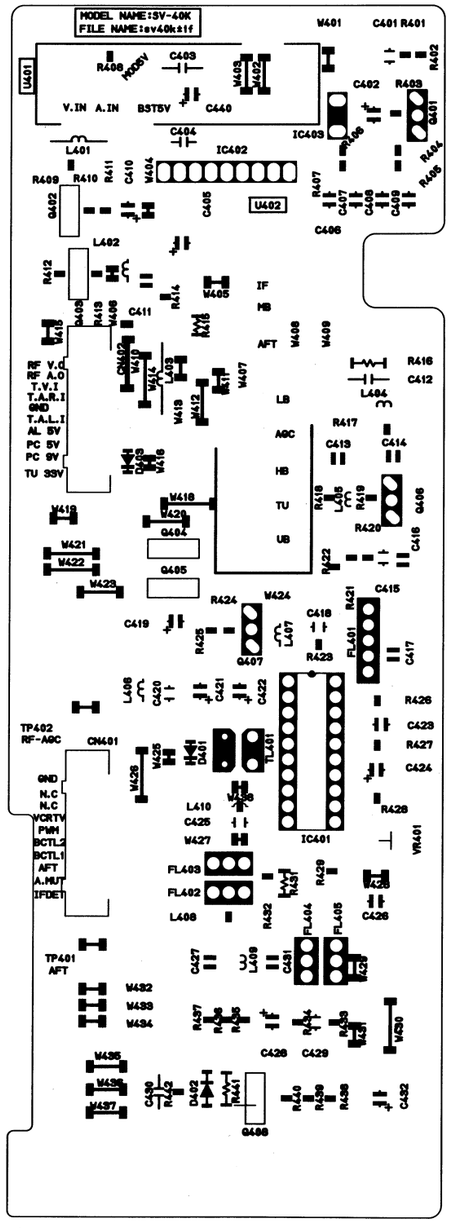
BST5V
C440
IC403
L401
IC402
U402
C406
L402
IF
AFT
LB
AGC
HB
TU
UB
RF V.C
RF A.C
T.V.I
T.A.R.I
GND
T.A.L.I
AL 5V
PC 5V
PC 9V
TU 33V
Q404
Q405
Q407
TP402
RF-AGC
CN401
GND
N.C
N.C
VCRTV
PWM
BCTL2
BCTL1
AFT
A.MUT
IFDET
TL401
IC401
VR401
FL403
FL402
FL404
FL405
TP401
AFT
Q408

8-2. SUB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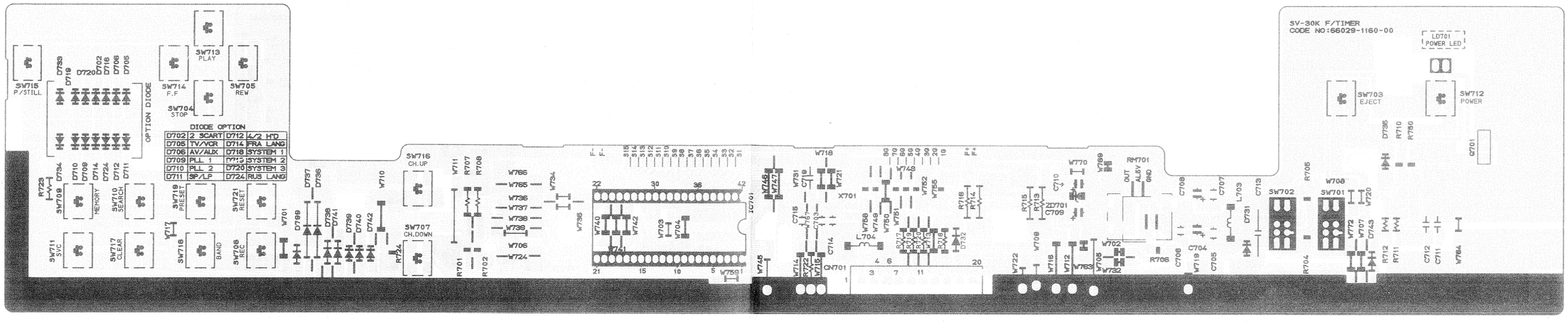
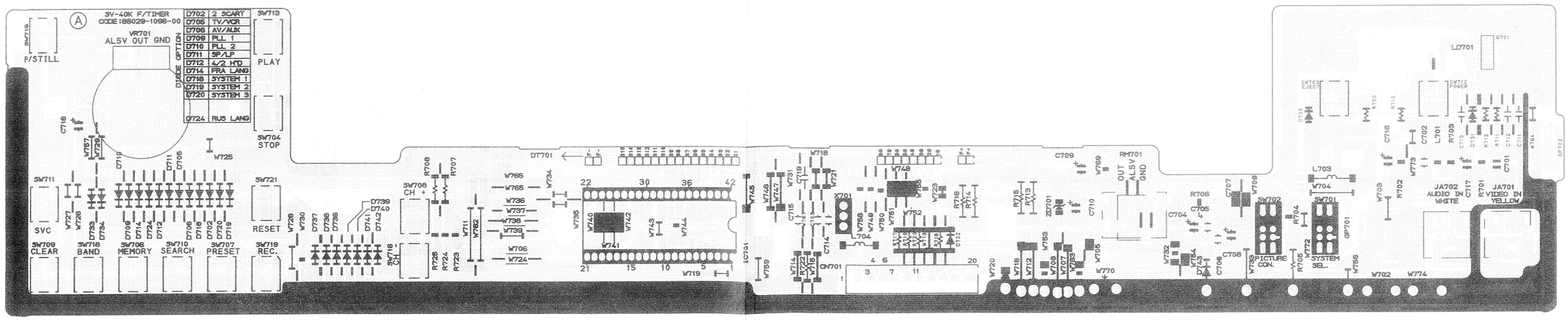
U401
U402
IC401
IC402
IC403
V.IN
A.IN
B5T5V
C440
L401
L402
IF
AFT
LS
AGC
HB
TU
UB
CN402
CN401
TP402
RF-AGC
GND
N.C
N.C
VCRTV
PWM
BCTL2
BCTL1
AFT
A.MUT
IFDET
TP401
AFT
FL401
FL402
FL403
FL404
FL405
TL401
VR401

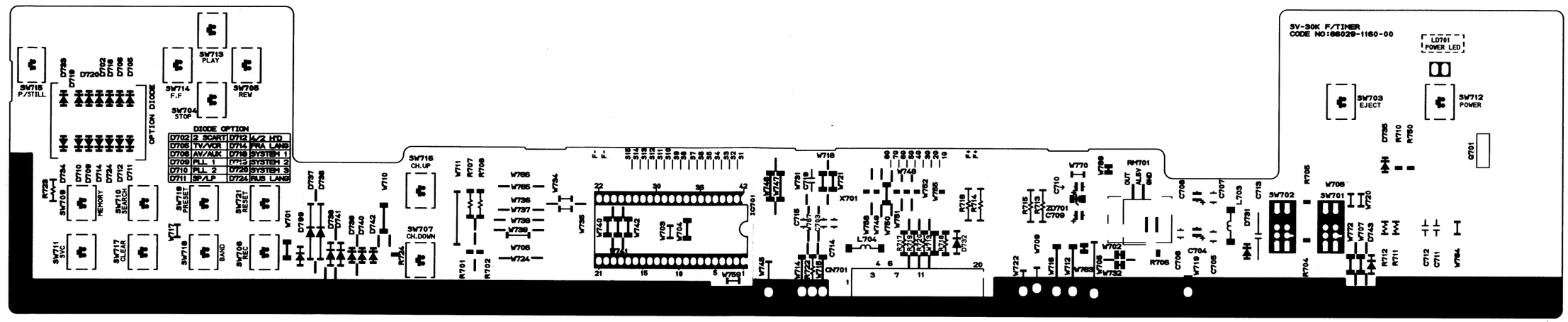
8-3. FUNCTION-TIMER (SV-30K/70K/SVR-30D/70D)



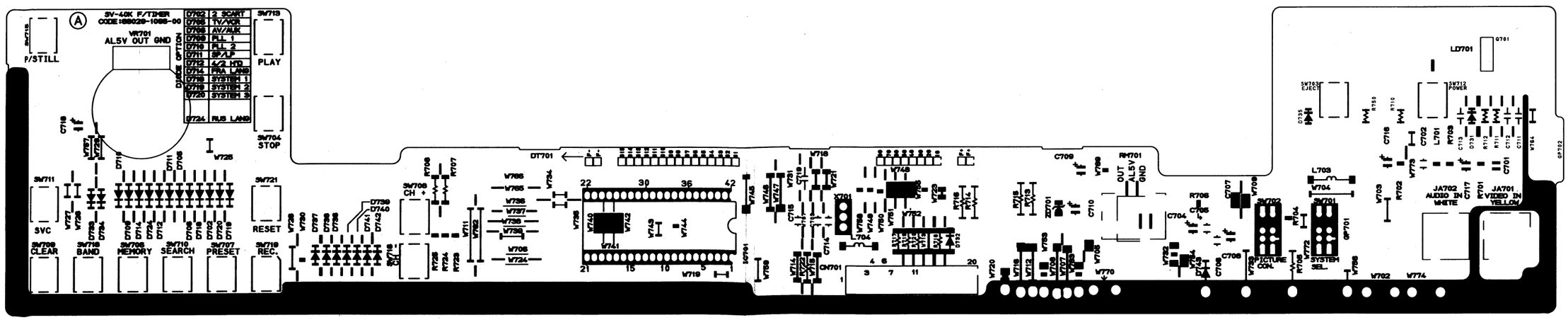
8-4. FUNCTION-TIMER (SV-40K/80K/SVR-40D/80D)



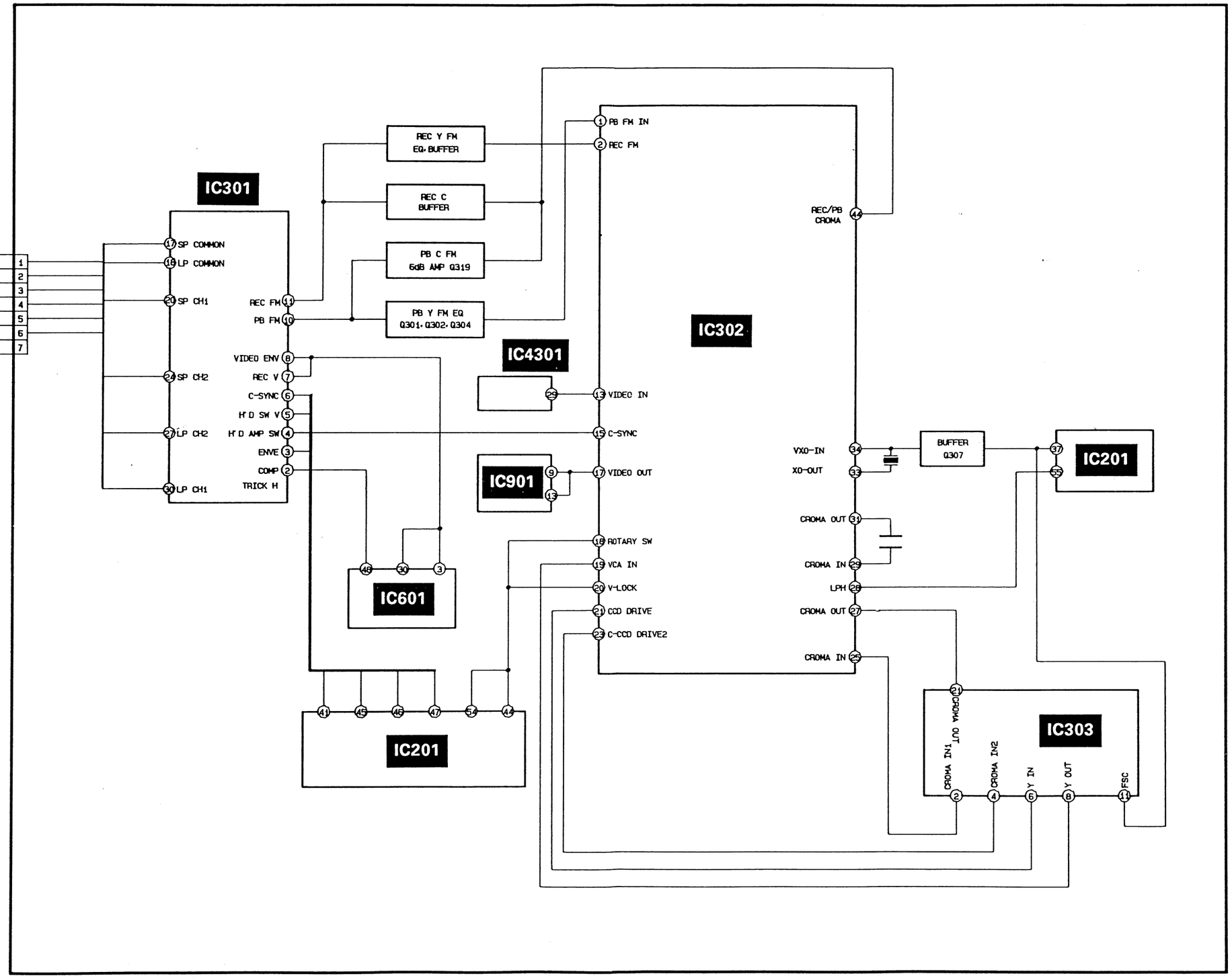
8-3. FUNCTION-TIMER (SV-30K/70K/SVR-30D/70D)



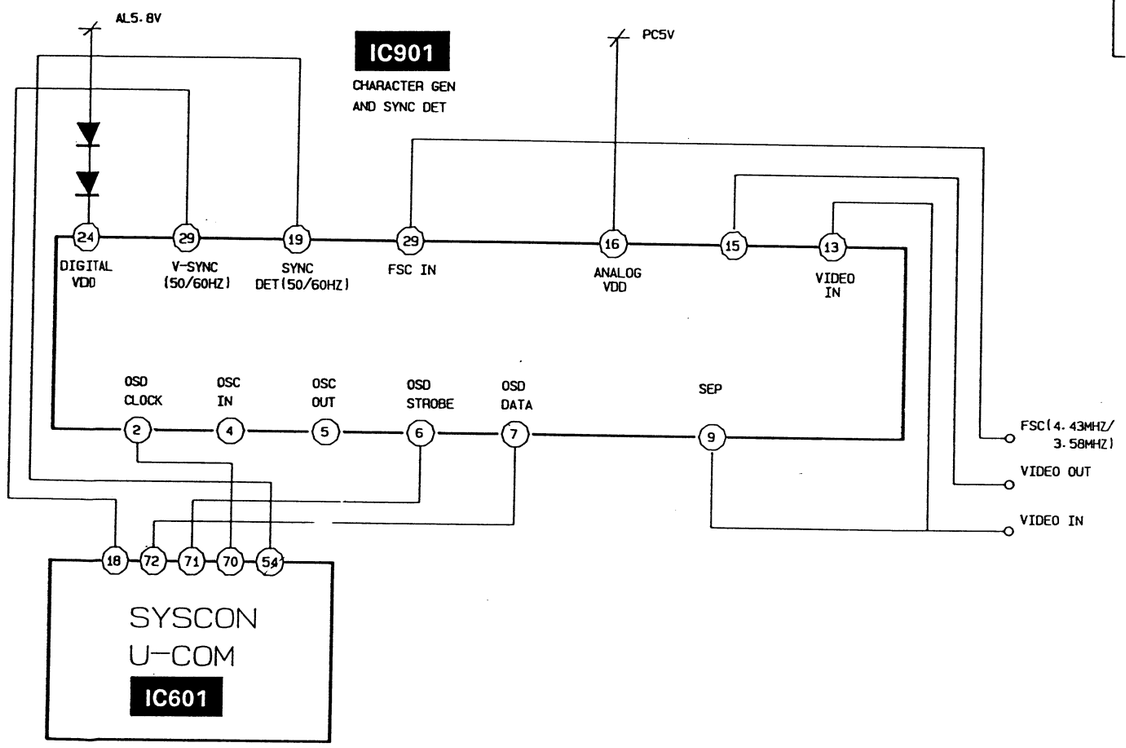
8-4. FUNCTION-TIMER (SV-40K/80K/SVR-40D/80D)



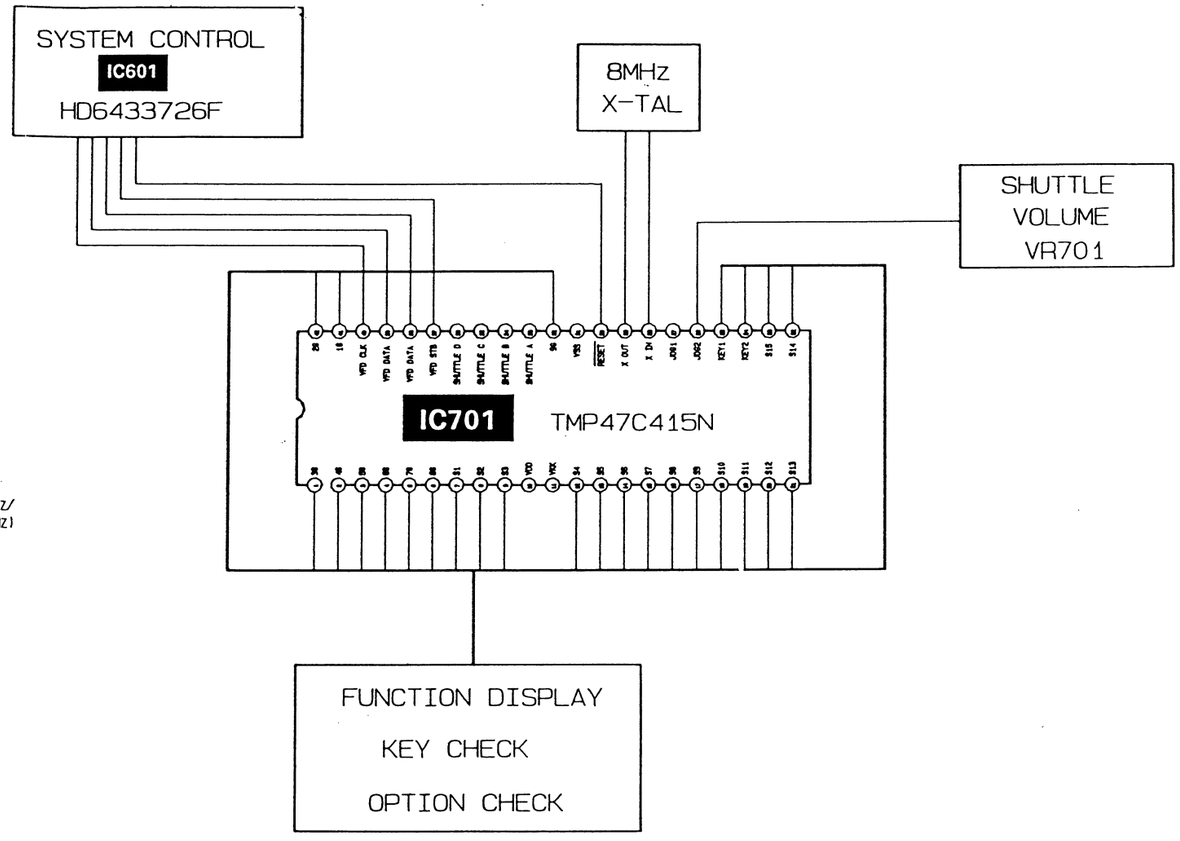
9-4. VIDEO/PRE-AMP



9-5. O.S.D



9-6. FUNCTION-TIMER



10. SCHEMATIC DIAGRAMS

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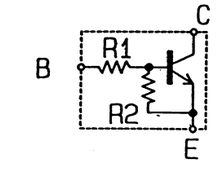
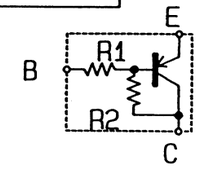
SEMICONDUCTOR

NPN TYPE



PNP TYPE

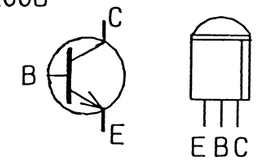


	R1	R2
KSR1001	4.7K	4.7K
KSR1002	10K	10K
KSR1004	47K	47K

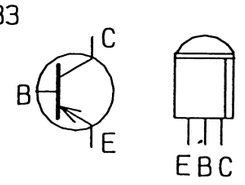
	R1	R2
KSR2001	4.7K	4.7K
KSR2002	10K	10K
KSR2004	47K	47K

KSC945

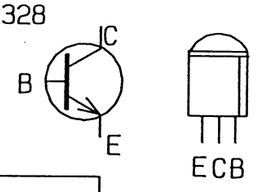
KSC1008



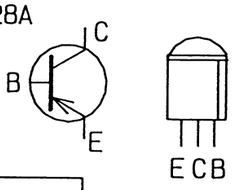
KSA733



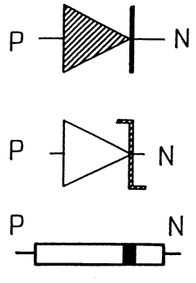
KSC2328



KSA928A

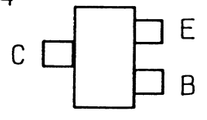


DIODE
ZENER DIODE



* CHIP TR

KSR2102
KSA928
KSR1104



NOTE

- For Schematic Diagram
  - Resistors are in ohms, 1/8W unless otherwise noted.
  - Circled numbers refer to waveforms.

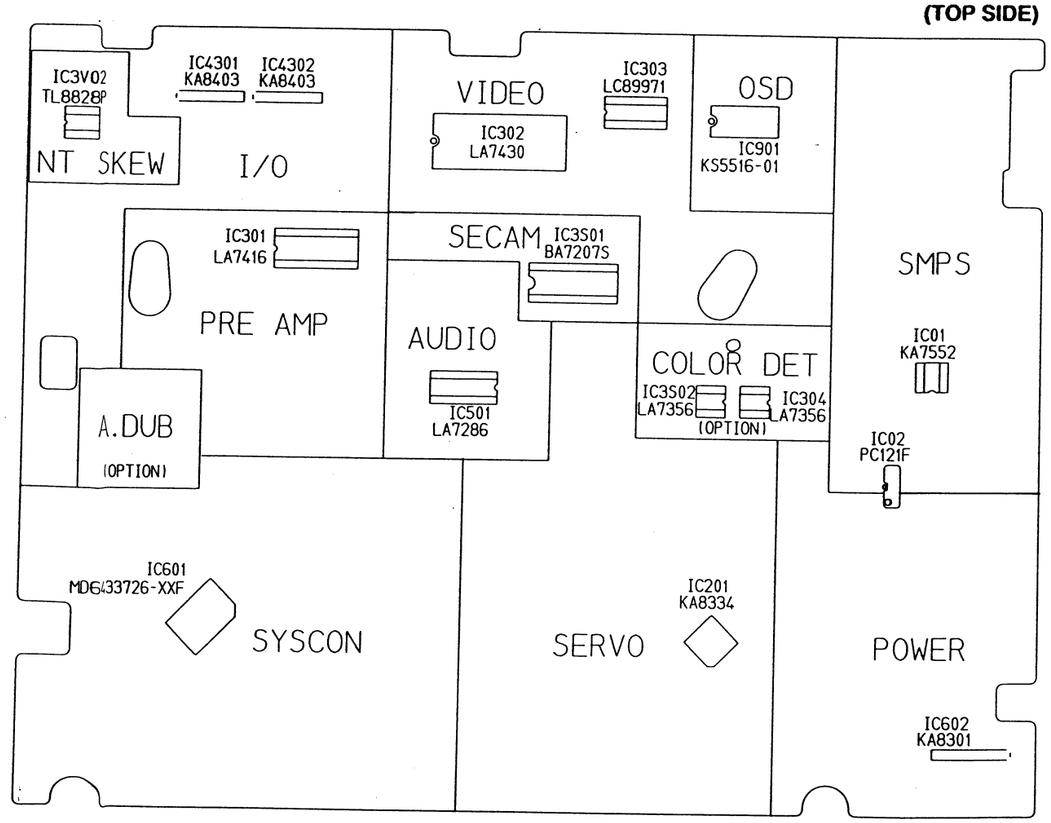
SPECIAL NOTE :
All integratedcircuits and many other semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the "electrostically sensitive (ES) devices" section of this service manual.

NOTE :
Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list. And may be slightly different or amended since this drawing was prepared.

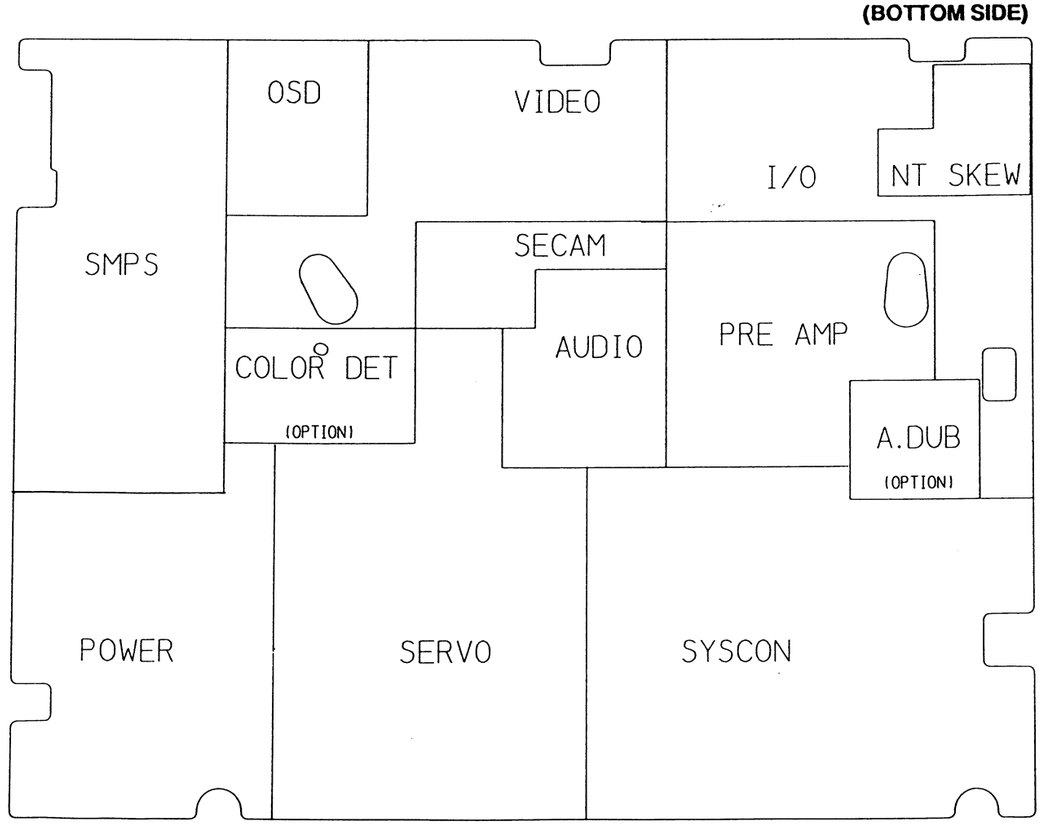
INFORTANT SAFETY NOTICES :
Components identified with the mark ⚠ have the special characteristics for safety when replacing any of these components. Use only the same type.

* BLOCK IDENTIFICATION OF MAIN PCB

(TOP SIDE)

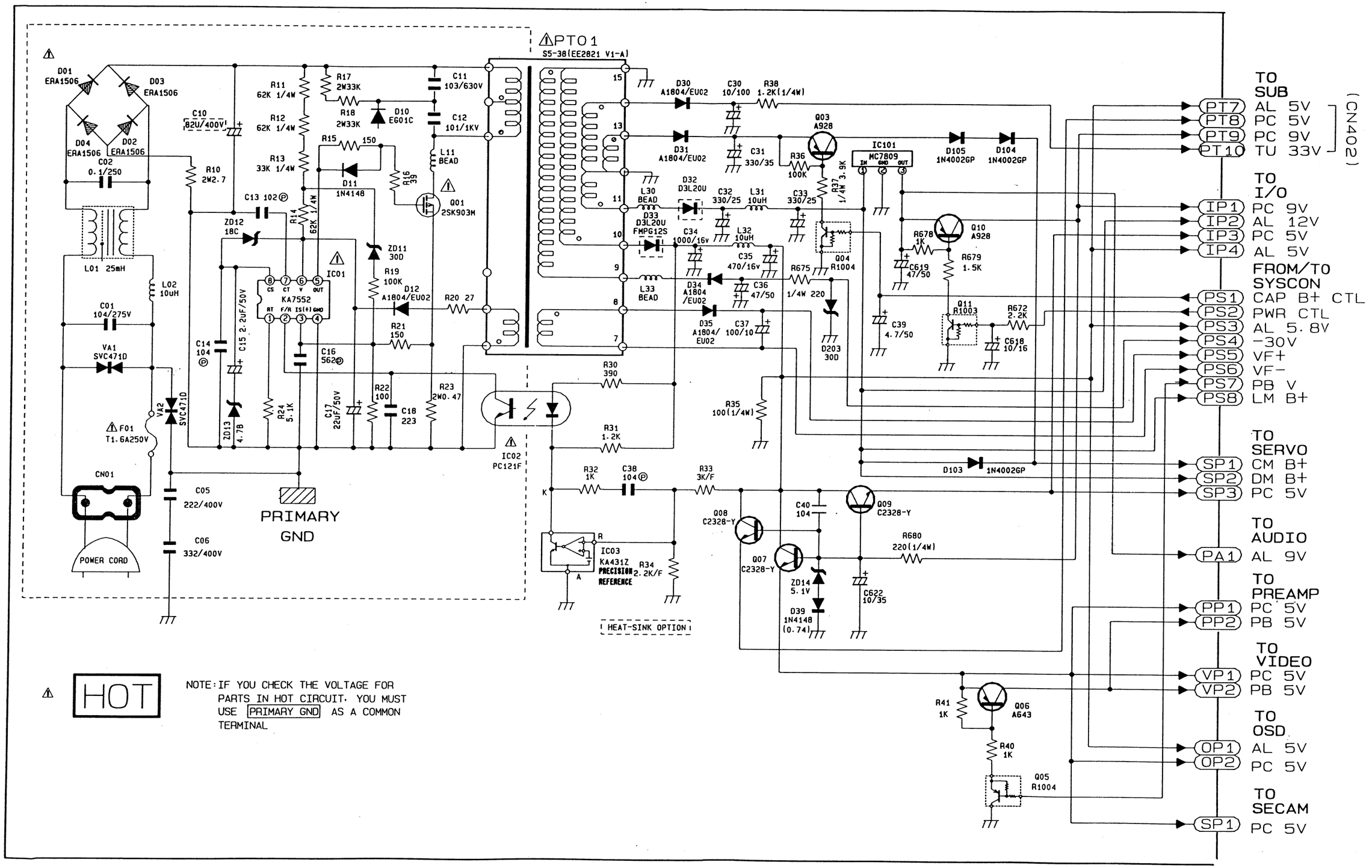


(BOTTOM SIDE)

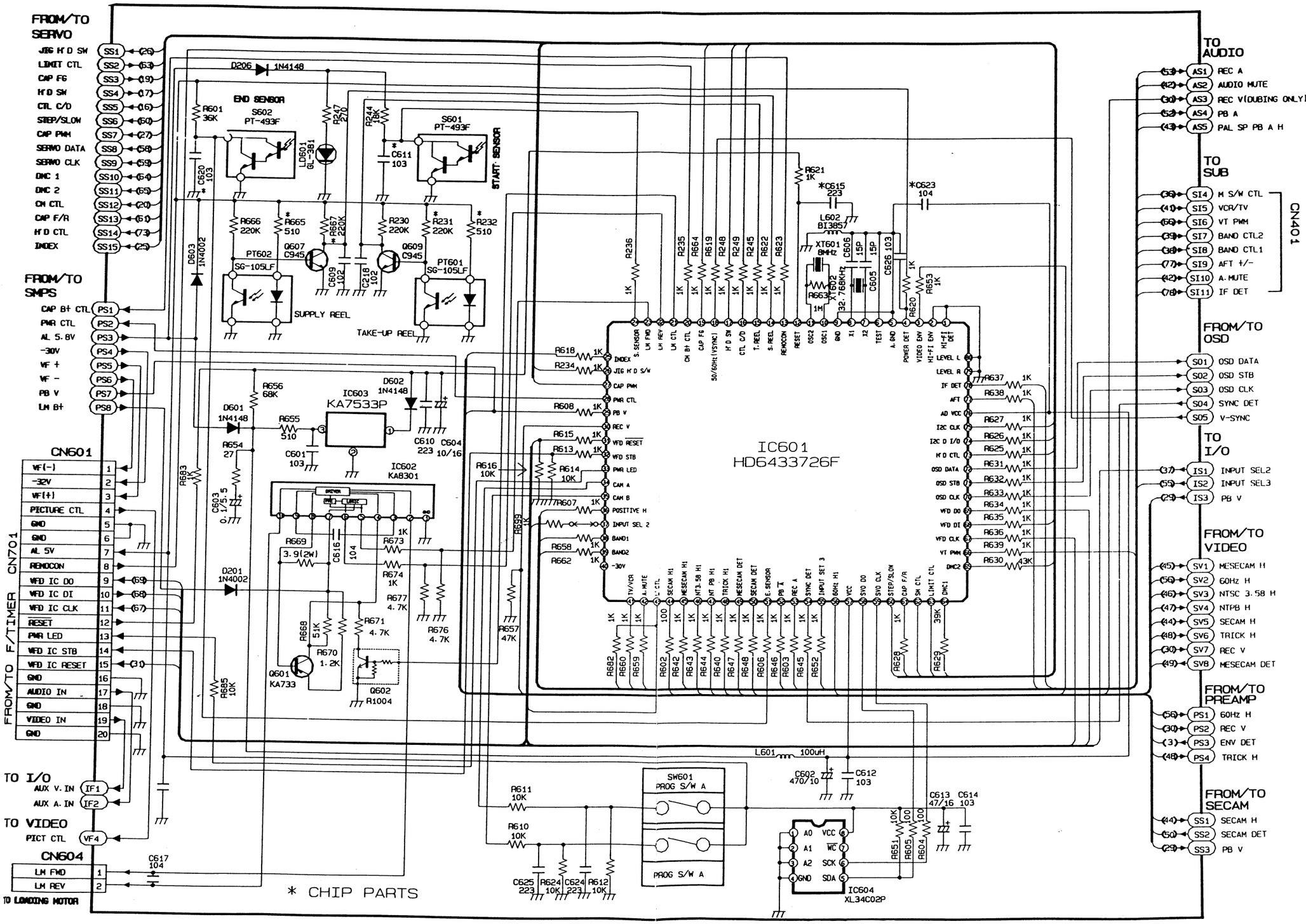


SMPS

10-1. SMPS



10-2. SYSTEM COTROL



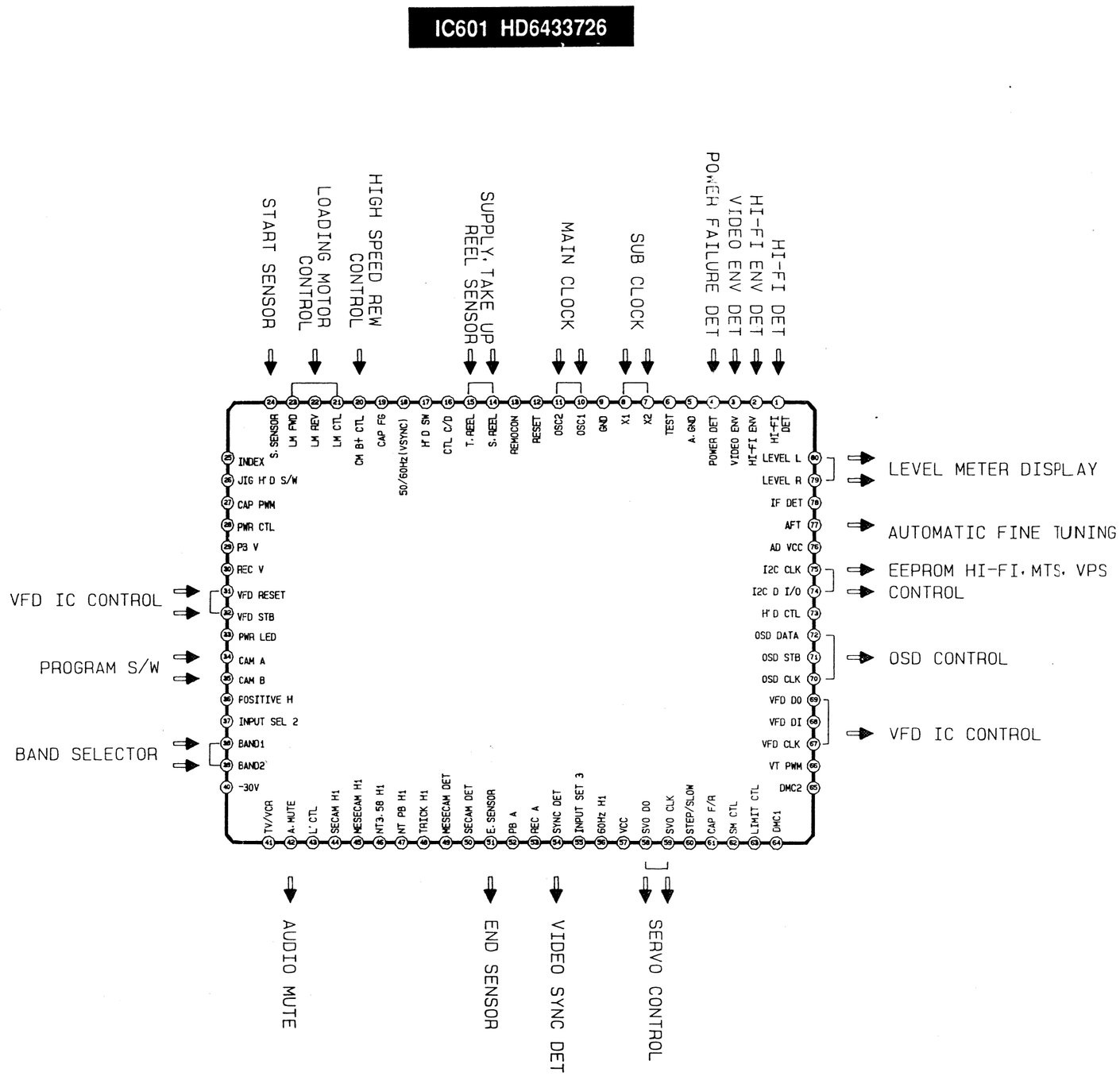
MODE NO	STOP	REC	PLAY
IC601			
1	0/5	0/5	0/5
2	0	0	2.5
3	2.5	2.5	2.5
4	5.0	5.0	5.0
5	0	0	0
6	0	0	0
7	2.4	2.4	2.4
8	1.0	1.0	1.0
9	0	0	0
10	3.6	3.6	3.6
11	4.0	4.0	4.0
12	5.0	5.0	5.0
13	5.0	5.0	5.0
14	0	0/5	0/5
15	0	0/5	0/5
16	0	0/5	0/5
17	0	0/5	0/5
18	0	0	0
19	0	0/5	0/5
20	0	0	0
21	5.0	5.0	5.0
22	5.0	5.0	5.0
23	5.0	5.0	5.0
24	5.0	5.0	5.0
25	0	0	0
26	0	0	0
27	5.0	5.0	5.0
28	5.0	5.0	5.0
29	0	0	5.0
30	0.6	5.0	0.6
31	5.0	5.0	5.0
32	0/5	0/5	0/5
33	5.0	5.0	5.0

MODE NO	STOP	REC	PLAY
IC601			
34	5.0	5.0	5.0
35	0	0	0
36	0	0	0
37	0	0	0
38	0	0	0.1
39	5.0	5.0	5.0
40	0	0	0
41	5.0	5.0	5.0
42	0	0	0
43	0	0	0
44	0	0	0
45	0	0	0
46	0	0	0
47	0	0	0
48	0	0	0
49	0	0	0
50	0	0	0
51	5.0	5.0	5.0
52	5.0	5.0	0
53	0	5.0	0
54	5.0	5.0	5.0
55	0	0	0
56	0	0	0
57	5.0	5.0	5.0
58	0/5	0/5	0/5
59	0/5	0/5	0/5
60	0	0	0
61	5.0	5.0	5.0
62	0	5.0	5.0
63	0	2.5	2.5
64	2.2	2.2	2.2
65	2.2	2.2	2.2
66	0/5	0/5	0/5

MODE NO	STOP	REC	PLAY
IC601			
67	0/5	0/5	0/5
68	0/5	0/5	0/5
69	0/5	0/5	0/5
70	5.0	5.0	5.0
71	5.0	5.0	5.0
72	0	0	0
73	0	0	0
74	0/5	0/5	0/5
75	0/5	0/5	0/5
76	5.0	5.0	5.0
77	4.6	4.6	4.6
78	4.6	4.6	4.6
79	4.5	4.5	4.5
80	4.0	4.0	4.0

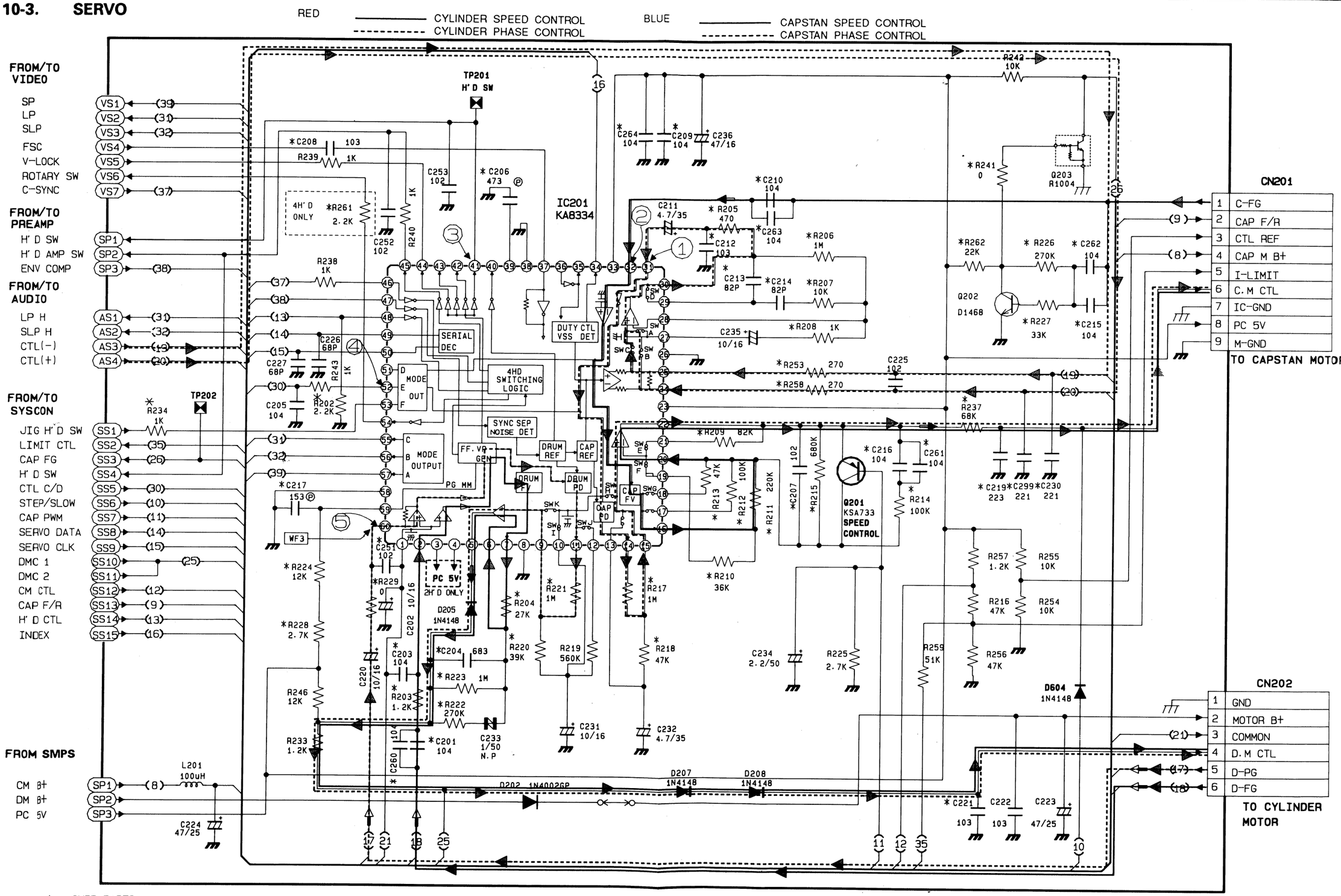
SYSTEM CONTROL

IC601 HD6433726



SERVO

10-3. SERVO

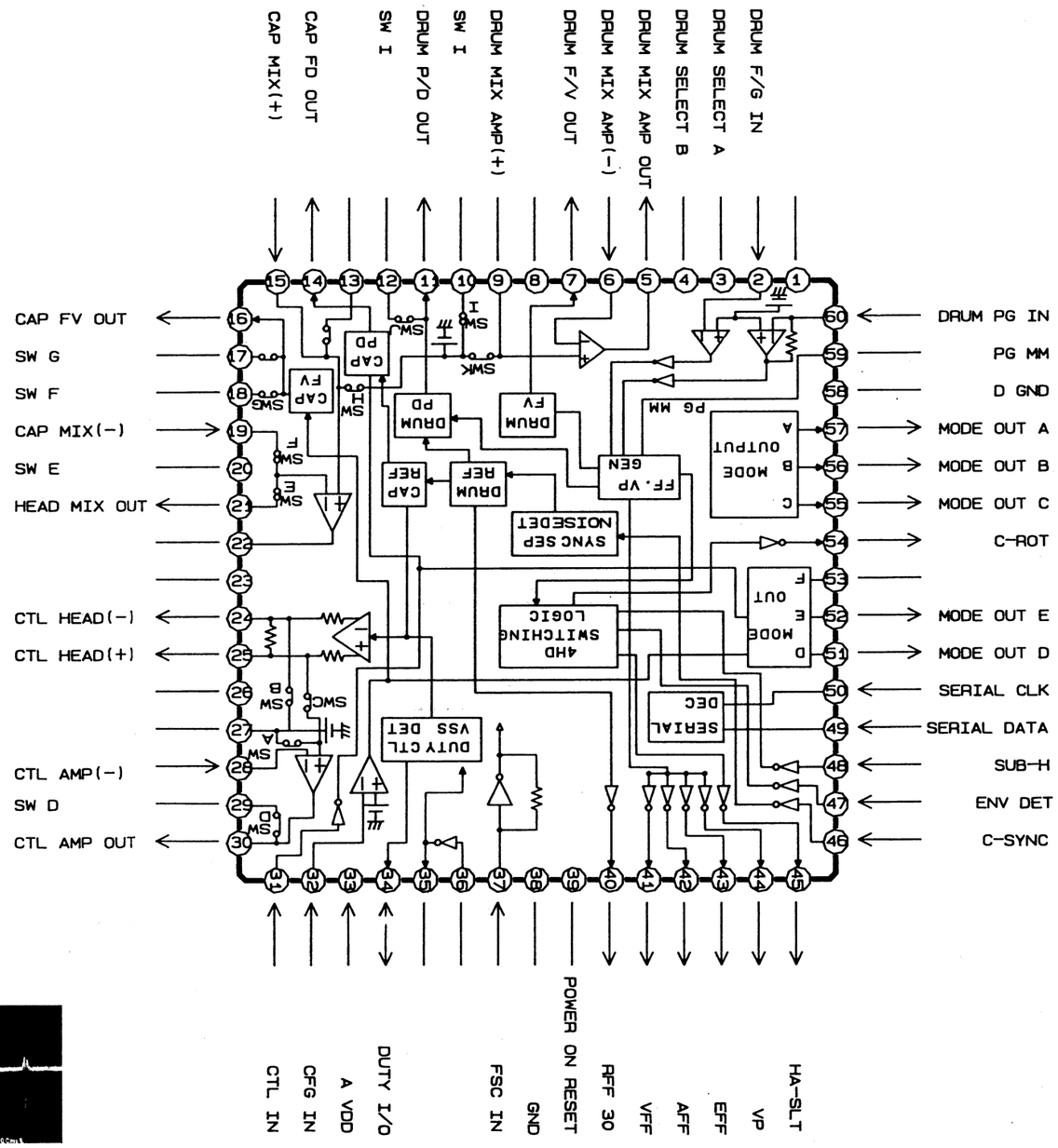


* : CHIP PARTS

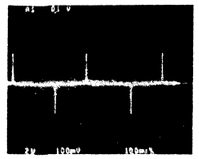
MODE / PIN NO	STOP	REC	PLAY
IC201			
1	2.5	2.4	2.5
2	2.5	2.5	2.5
3	2.5	2.5	2.5
4	2.5	2.5	2.5
5	1.6	1.6	1.6
6	2.5	2.5	2.5
7	2.5	2.5	2.5
8	0	0	0
9	2.5	2.5	2.5
10	1.8	0.2	0
11	2.5	2.5	2.5
12	2.3	2.3	2.3
13	5.0	5.0	5.0
14	5.0	2.5	2.5
15	2.5	2.5	2.5
16	0	0	2.5
17	0.8	2.5	2.5
18	0.1	2.5	2.5
19	1.1	2.5	2.5
20	5.0	2.6	2.6
21	5.0	2.6	2.6
22	5.0	5.0	5.0
23	0	0	0
24	2.5	2.5	2.2
25	2.5	2.8	2.8
26	0	0	0
27	2.5	2.5	2.5
28	2.5	2.5	2.5
29	2.5	2.5	2.5
30	2.5	2.5	2.5
31	2.5	2.5	2.5
32	2.5	2.5	2.5

MODE / PIN NO	STOP	REC	PLAY
33	5.0	5.0	5.0
34	5.0	3.0	2.0
35	5.0	5.0	0
36	0	0	0
37	2.4	2.4	2.4
38	0	0	0
39	4.9	4.9	4.9
40	2.5	2.5	2.5
41	2.4	2.4	2.4
42	2.4	0	2.4
43	2.4	2.4	2.4
44	0	0	0
45	4.9	0	0
46	2.7	2.7	0.7
47	0.8	0.8	0
48	0.9	0.9	0.9
49	0.6	0.6	0.6
50	0.7	0.7	0.7
51	0	2.3	2.3
52	4.9	4.9	1.9
53	0	0	0
54	2.3	2.3	2.3
55	0	0	0
56	0	0	0
57	4.8	0	4.8
58	0	0	0
59	0	0.3	0.3
60	2.4	2.4	2.4

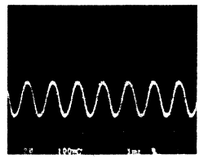
IC201 KA8334



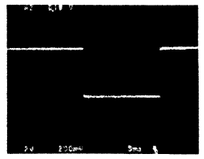
① IC201-31
3.2Vp-p
PB



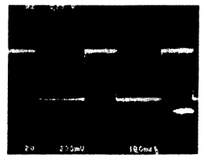
② IC201-32
2Vp-p
PB



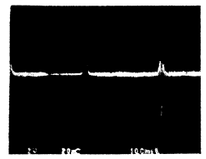
③ IC201-41
5Vp-p
PB



④ IC201-52
5Vp-p
PB

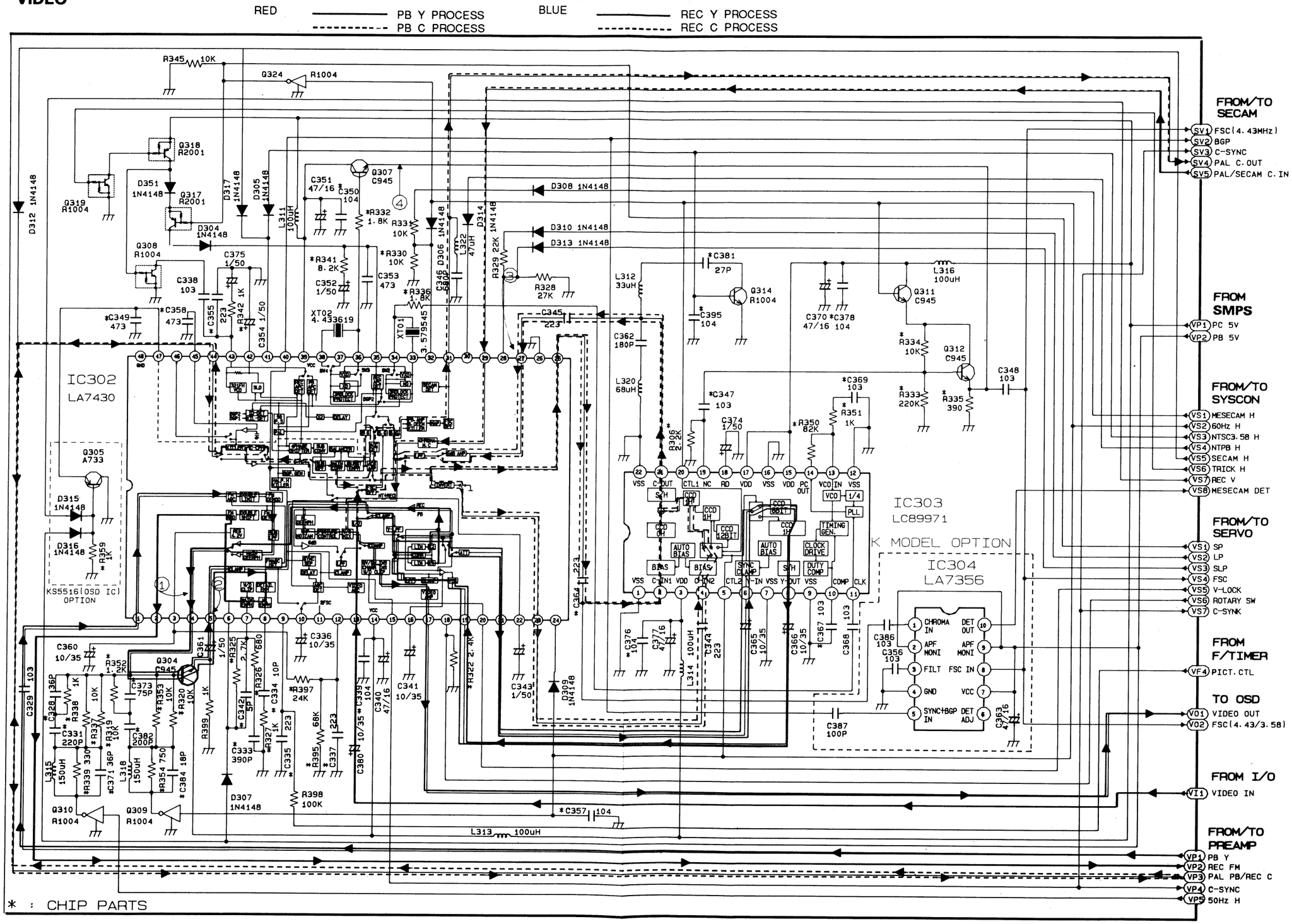


⑤ IC201-60
420mVp-p
PB



VIDEO

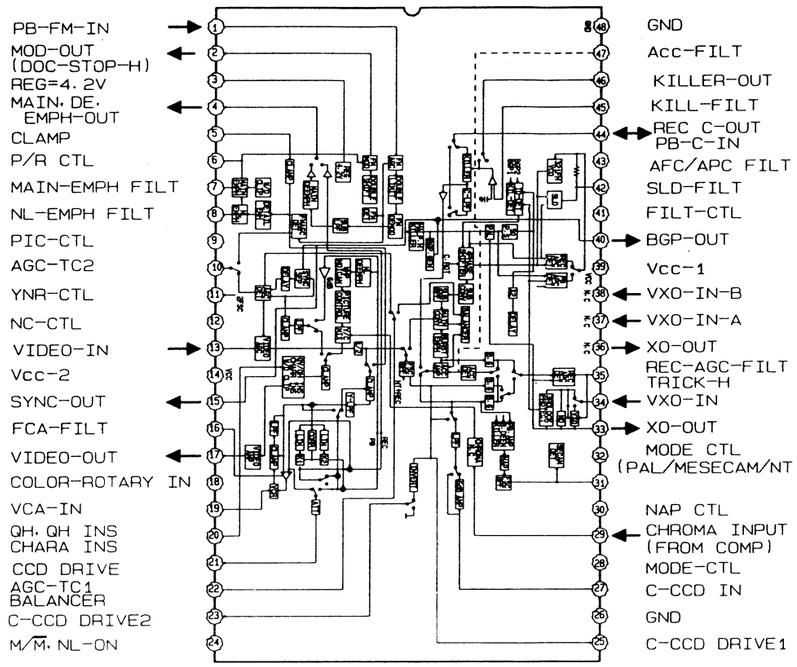
10-4. VIDEO



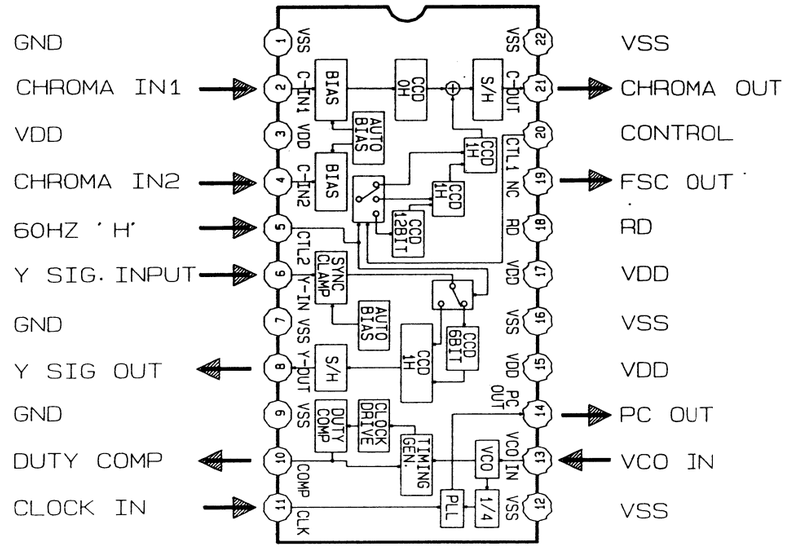
MODE / PIN NO	E/E	PLAY	REC
IC302			
1	3.0	3.6	3.0
2	2.4	3.6	2.5
3	4.2	4.2	4.2
4	2.1	3.2	2.1
5	2.8	3.0	2.8
6	2.0	4.4	2.8
7	2.0	4.4	2.0
8	2.6	2.8	2.6
9	2.5	2.5	2.5
10	1.4	1.5	1.5
11	2.0	2.0	0
12	2.8	2.8	2.8
13	2.6	3.1	2.6
14	5.0	5.0	5.0
15	0	0	0
15	3.1	3.1	3.1
17	0.8	0.9	0.9
18	0	0	0
19	2.0	2.0	2.0
20	0	0	0
21	1.0	1.0	1.0
22	2.2	2.2	2.2
23	2.5	2.4	2.4
24	0	0	0
25	2.5	2.5	2.4
26	0	0	0
27	2.5	2.4	2.5
28	0.8	2.5	0.8
29	1.9	1.8	1.9
30	0	0	0
31	0.4	2.4	0.4
32	0.4	0.4	0.4
33	3.6	3.6	3.6
34	2.5	2.4	2.5
35	2.0	2.0	2.2
36	2.5	2.5	2.5
37	0	0	0
38	3.8	3.8	3.8
39	5.0	5.0	5.0
40	0	0	0
41	0.3	0.3	0.3
42	3.0	3.0	3.0
43	2.8	2.8	2.8
44	2.3	3.2	2.2
45	0	2.0	2.0
46	4.2	0	0
47	0.6	1.2	1.8
48	0	0	0

MODE / PIN NO	E/E	PLAY	REC
IC303			
1	0	0	0
2	2.2	2.0	2.2
3	5.0	5.0	5.0
4	2.2	2.0	2.2
5	0	0	0
6	2.2	2.2	2.2
7	0	0	0
8	1.0	1.0	1.0
9	0	0	0
10	2.4	2.4	2.4
11	1.0	1.0	1.0
12	0	0	0
13	2.0	2.0	2.0
14	2.0	2.0	2.0
15	5.0	5.0	5.0
16	0	0	0
17	5.0	5.0	5.0
18	8.5	8.5	8.5
19	3.2	3.2	3.2
20	0	0	0
21	1.4	1.4	1.2
22	0	0	0

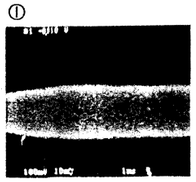
IC302 LA7430



IC303 LC89971

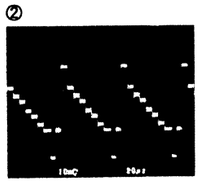


①



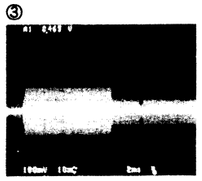
IC302-4
300mVp-p
PLAY

②



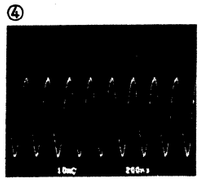
IC302-5
500mVp-p
REC

③



IC302-27
260mVp-p
PB

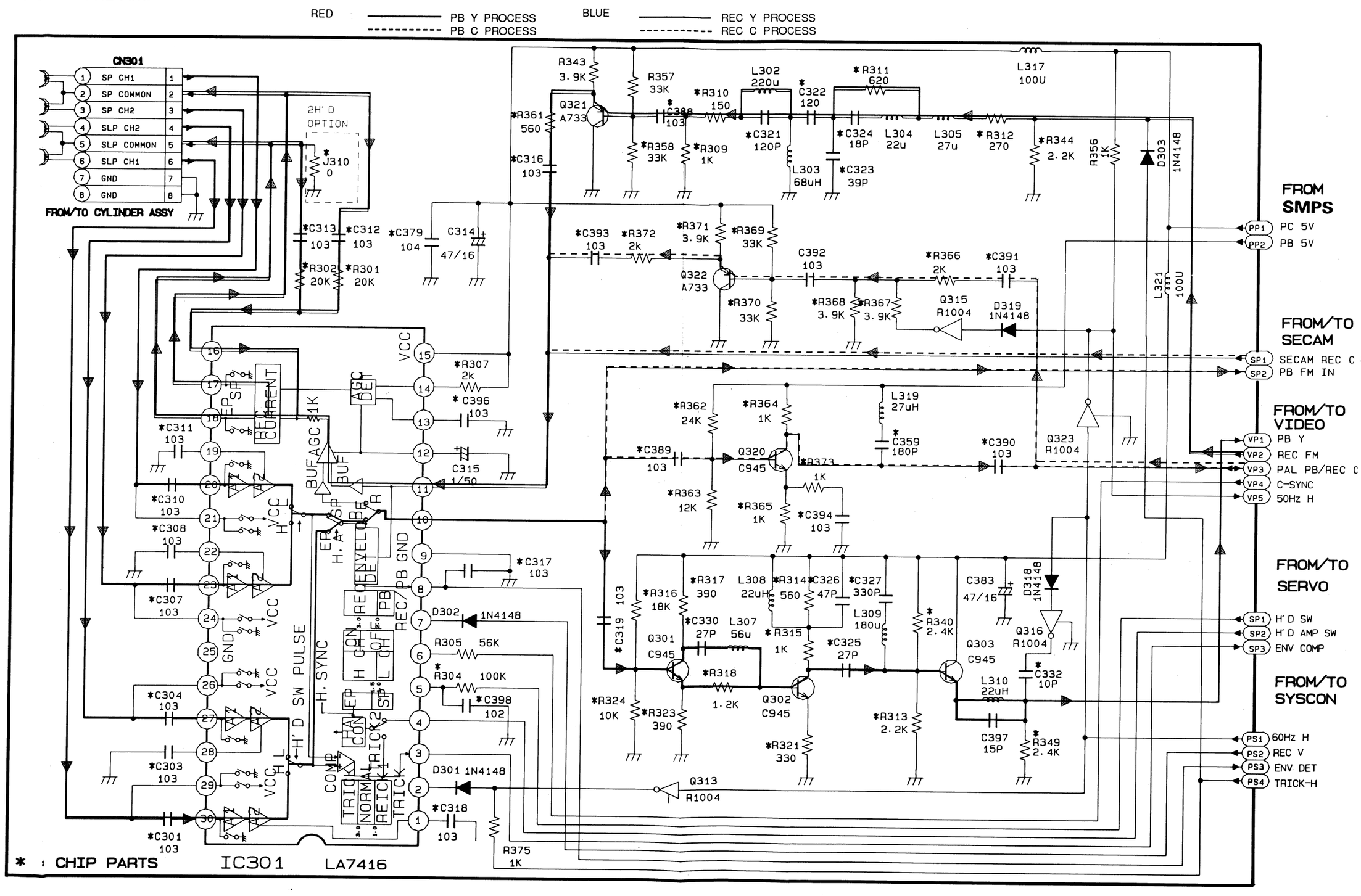
④



Q307-Emitter
420mVp-p
E/E, PB, REC

PRE-AMP

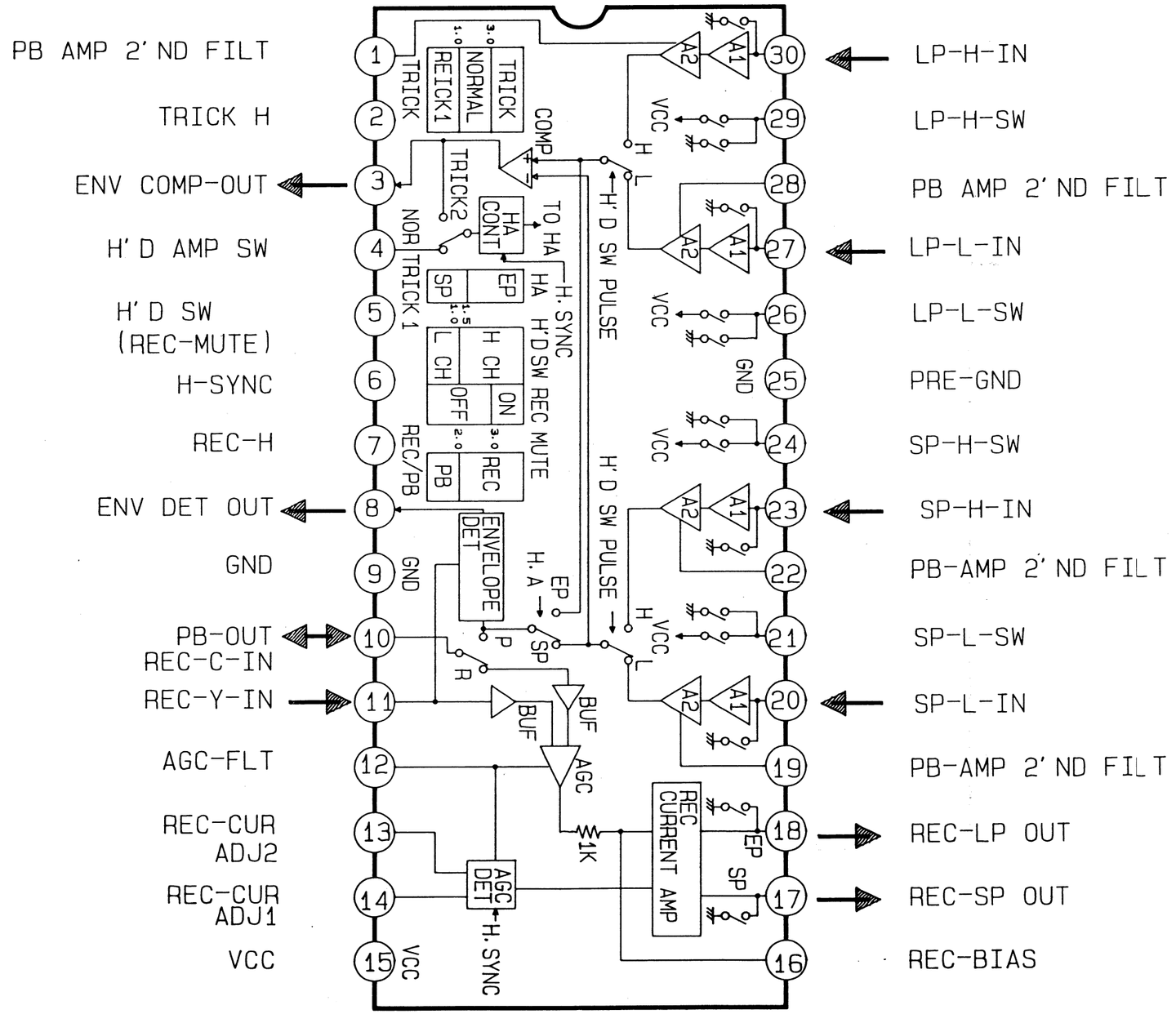
10-5. PRE-AMP



MODE / PIN NO	E/E	PLAY	REC
IC301			
1	2.0	2.0	3.6
2	2.0	2.0	2.0
3	0	0	1.2
4	0	0	0
5	0	0	0
6	0.1	0.1	0.1
7	0	0	4.5
8	0.3	2.2	0
9	0	0	0
10	2.2	2.2	3.2
11	0	0	3.2
12	0	0	1.6
13	2.5	2.5	2.5
14	5.0	5.0	4.0
15	5.0	5.0	5.0
16	0	0	1.5
17	0	0	2.3
18	0	0	0
19	2.0	2.0	3.6
20	0.6	0.6	0.1
21	0	0	4.0
22	2.0	2.0	3.6
23	0.6	0.6	0
24	0	0	4.0
25	0	0	0
26	0	0	0
27	0.6	0.6	0.1
28	2.0	2.0	3.6
29	0	0	0
30	0.6	0.6	0.1

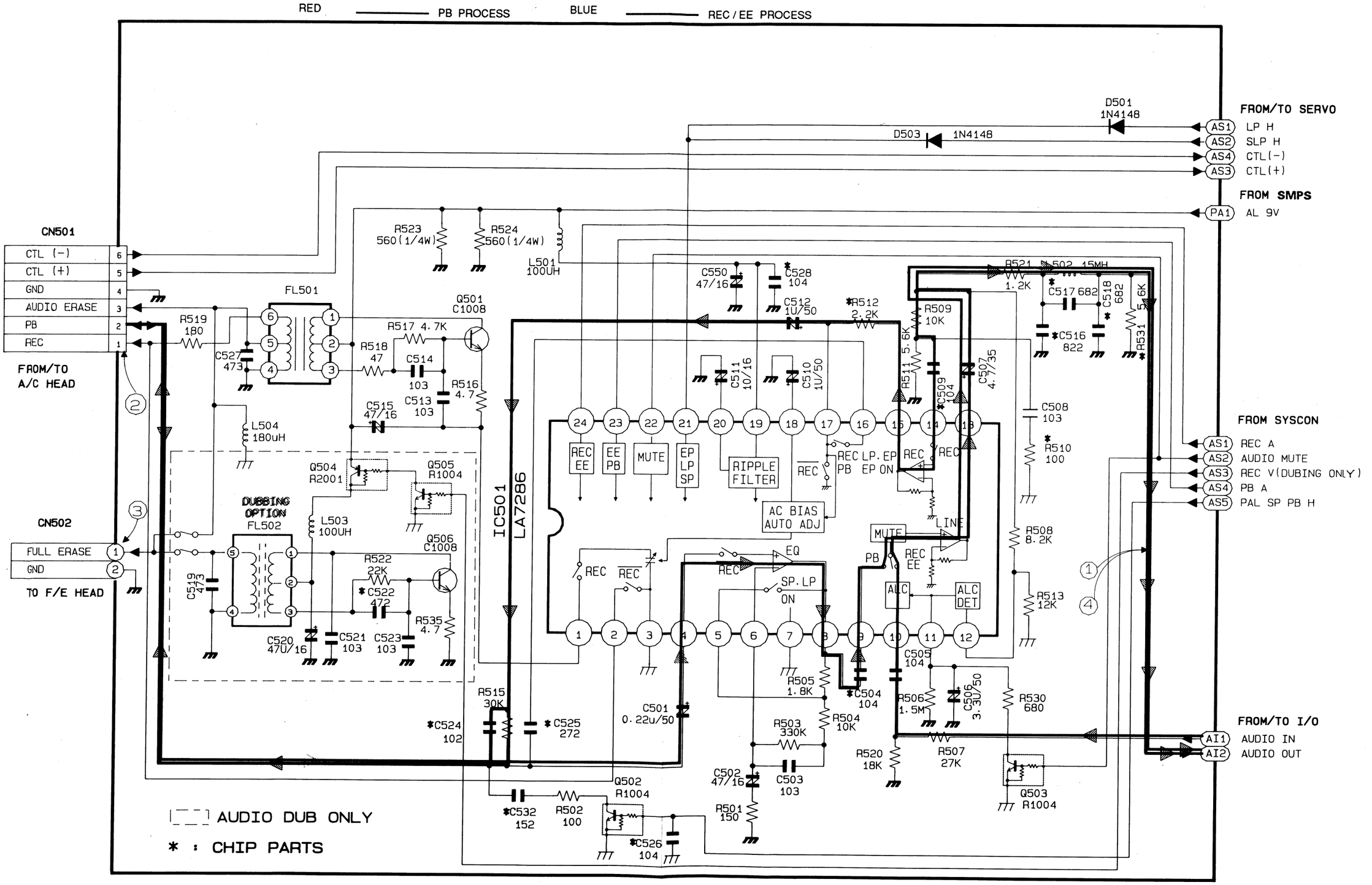
PRE-AMP

IC301 LA7416



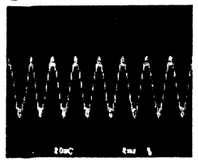
AUDIO

10-6. AUDIO

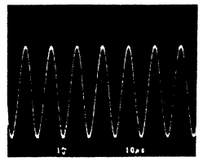


MODE / PIN NO	STOP	REC	PLAY
IC501			
1	9.0	4.0	9.0
2	0	0	0
3	0	0	0
4	4.0	4.0	4.0
5	4.0	4.0	4.0
6	4.0	4.0	4.0
7	0	0	0
8	4.0	4.0	4.0
9	4.0	4.0	4.0
10	4.0	4.0	4.0
11	0.5	0.5	0
12	0	0	0
13	4.0	4.0	4.0
14	4.0	4.0	4.0
15	4.0	4.0	4.0
16	0	4.0	0
17	4.0	4.0	4.0
18	0	0.8	0
19	9.0	9.0	9.0
20	9.0	9.0	9.0
21	0	0	0
22	0.8	0.8	0.8
23	4.5	4.5	0.8
24	0	5.0	0

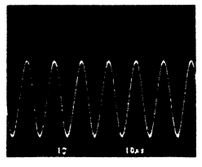
MODE / PIN NO	STOP	REC	PLAY
Q501			
E	9.0	4.0	9.0
B	9.0	2.5	9.0
C	9.0	8.9	9.0
Q502			
E	0	0	0
B	0.3	0	0.3
C	0.3	8.7	0.3
Q503			
E	0	0	0
B	0	4.9	0
C	9.0	0	9.0
Q504			
E	8.9	8.9	8.9
B	8.9	0	8.9
C	0.2	8.8	0.2
Q505			
E	0	0	0
B	0	0	0
C	0	0	0
Q506			
E	0	0	0
B	0.8	0.8	0.8
C	0.5	0.5	0

① 

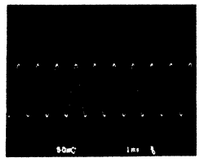
R531-Audio Out
0.7Vp-p
PB

② 

CN501-1
50Vp-p
REC

③ 

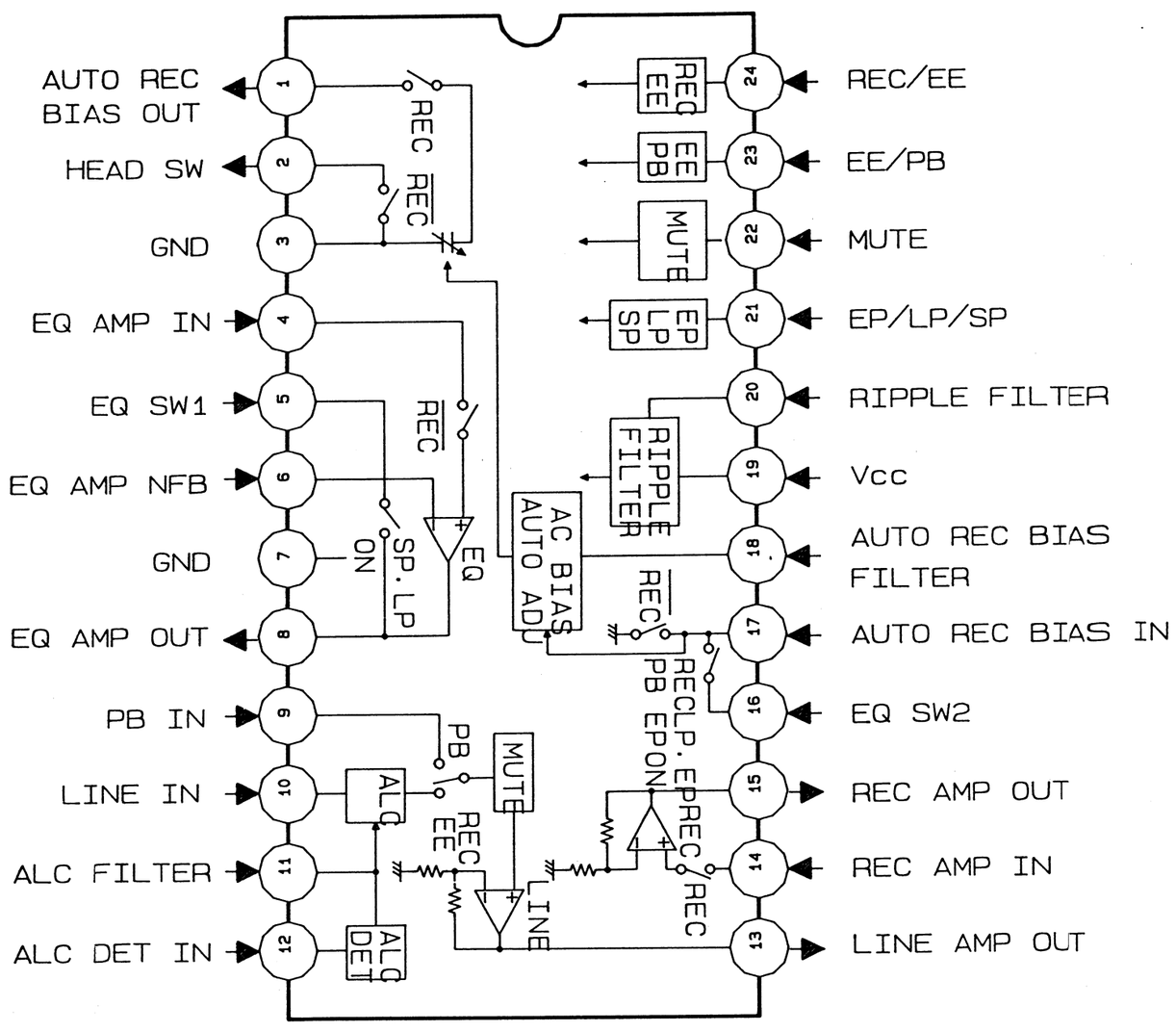
CN502-1
40Vp-p
REC

④ 

R531-Audio Out
1.45Vp-p
E/E, REC

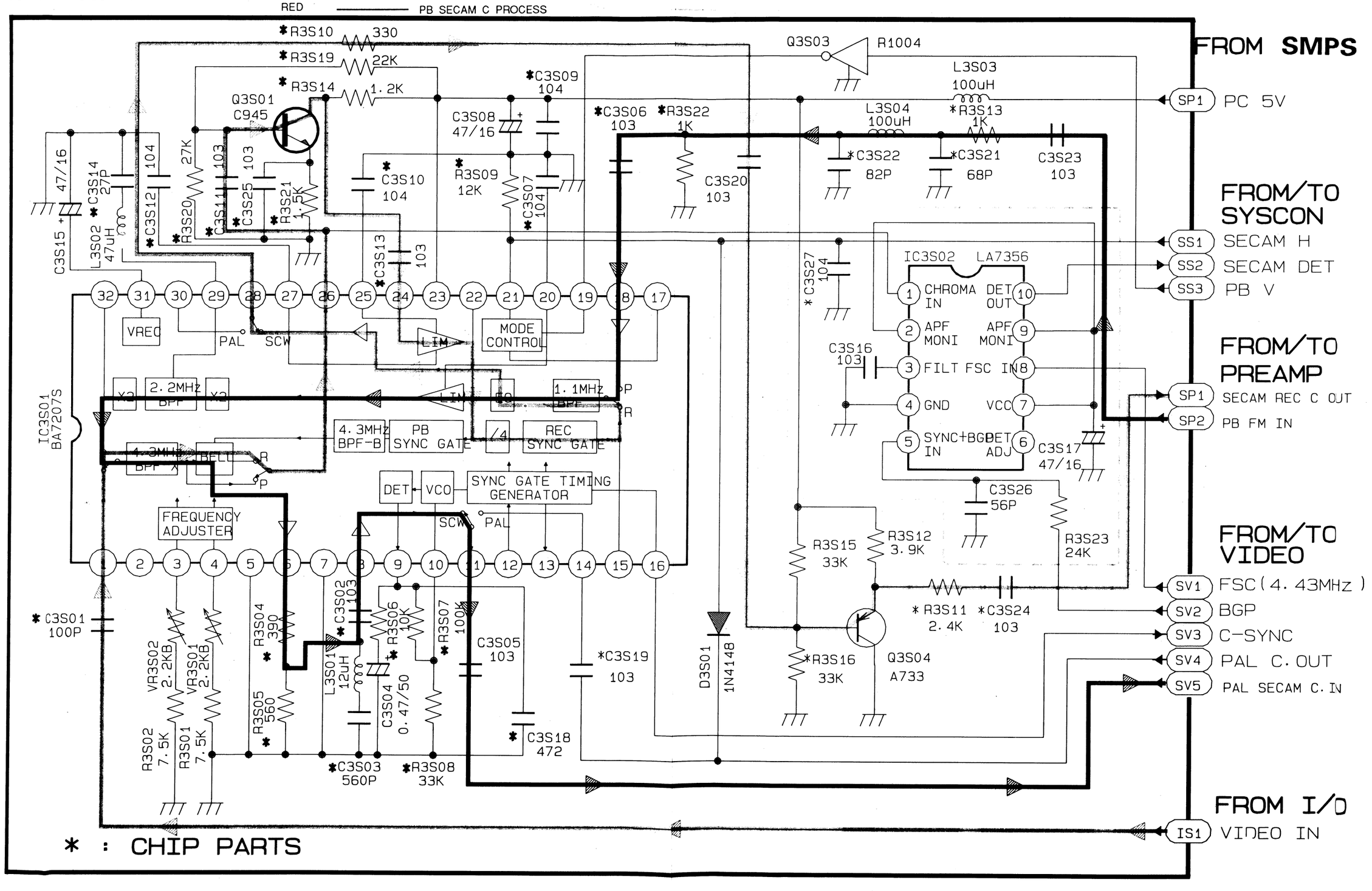
AUDIO

IC501 LA7286



SECAM

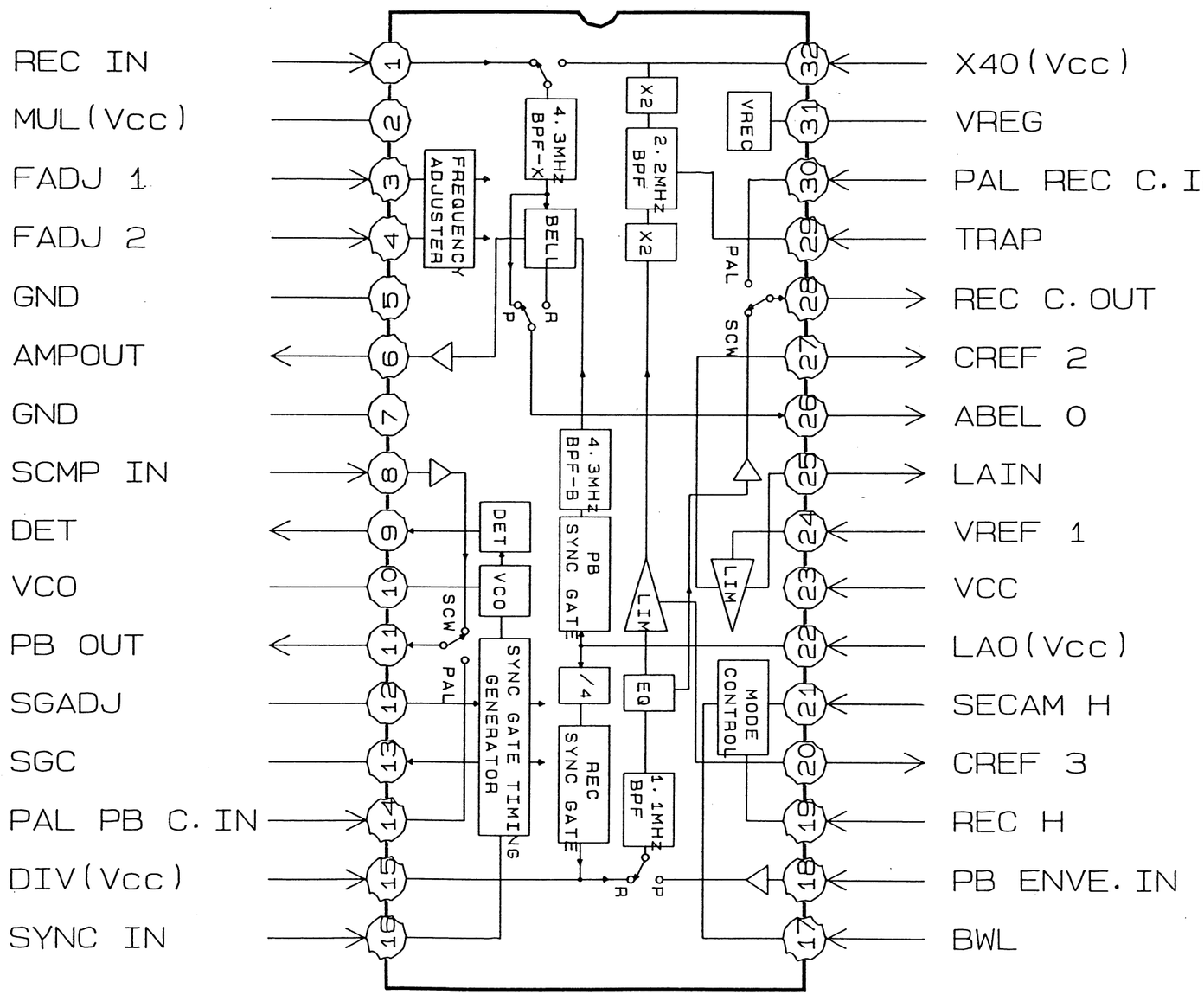
10-7. SECAM



MODE / PIN NO	STOP	REC	PLAY
IC3S01			
1	2.4	2.4	2.4
2	5.0	5.0	5.0
3	1.8	1.8	1.8
4	1.8	1.8	1.8
5	0	0	0
6	1.8	1.8	1.8
7	0	0	0
8	3.0	3.0	3.0
9	1.8	1.8	1.8
10	2.0	2.0	2.0
11	2.3	2.3	2.3
12	2.4	2.4	2.4
13	2.4	2.4	2.4
14	3.0	3.0	3.0
15	5.0	5.0	5.0
16	4.2	4.2	4.2
17	4.8	4.8	4.8
18	2.5	2.5	2.5
19	4.8	4.8	0
20	0	0	2.5
21	4.8	4.8	4.8
22	5.0	5.0	5.0
23	5.0	5.0	5.0
24	2.0	2.0	2.0
25	2.0	2.0	2.0
26	2.0	2.0	2.0
27	2.3	2.3	2.3
28	2.4	2.4	2.4
29	1.0	1.0	1.8
30	3.0	3.0	3.0
31	2.5	2.5	2.5
32	5.0	5.0	5.0

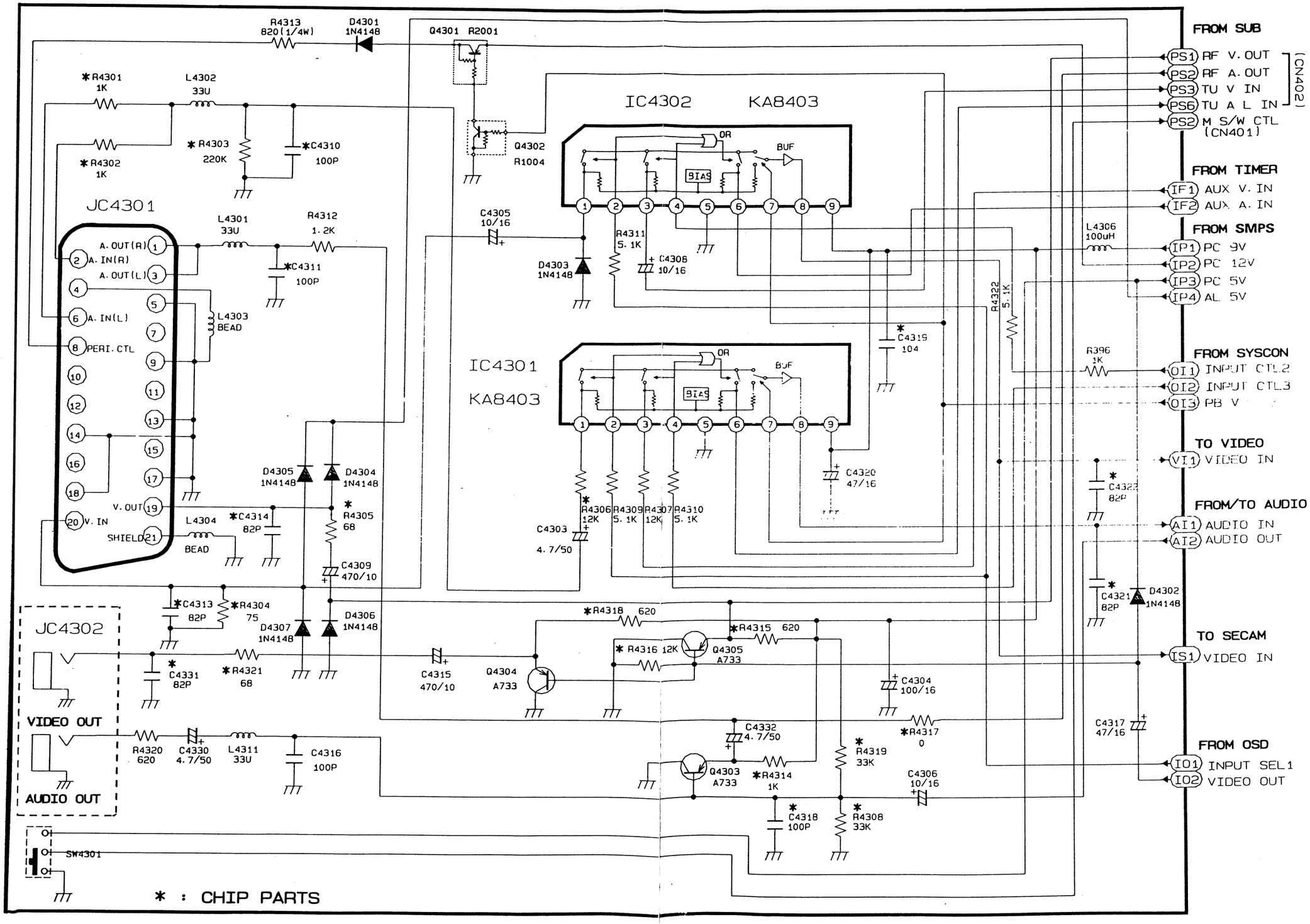
SECAM

IC3S01 BA7207S



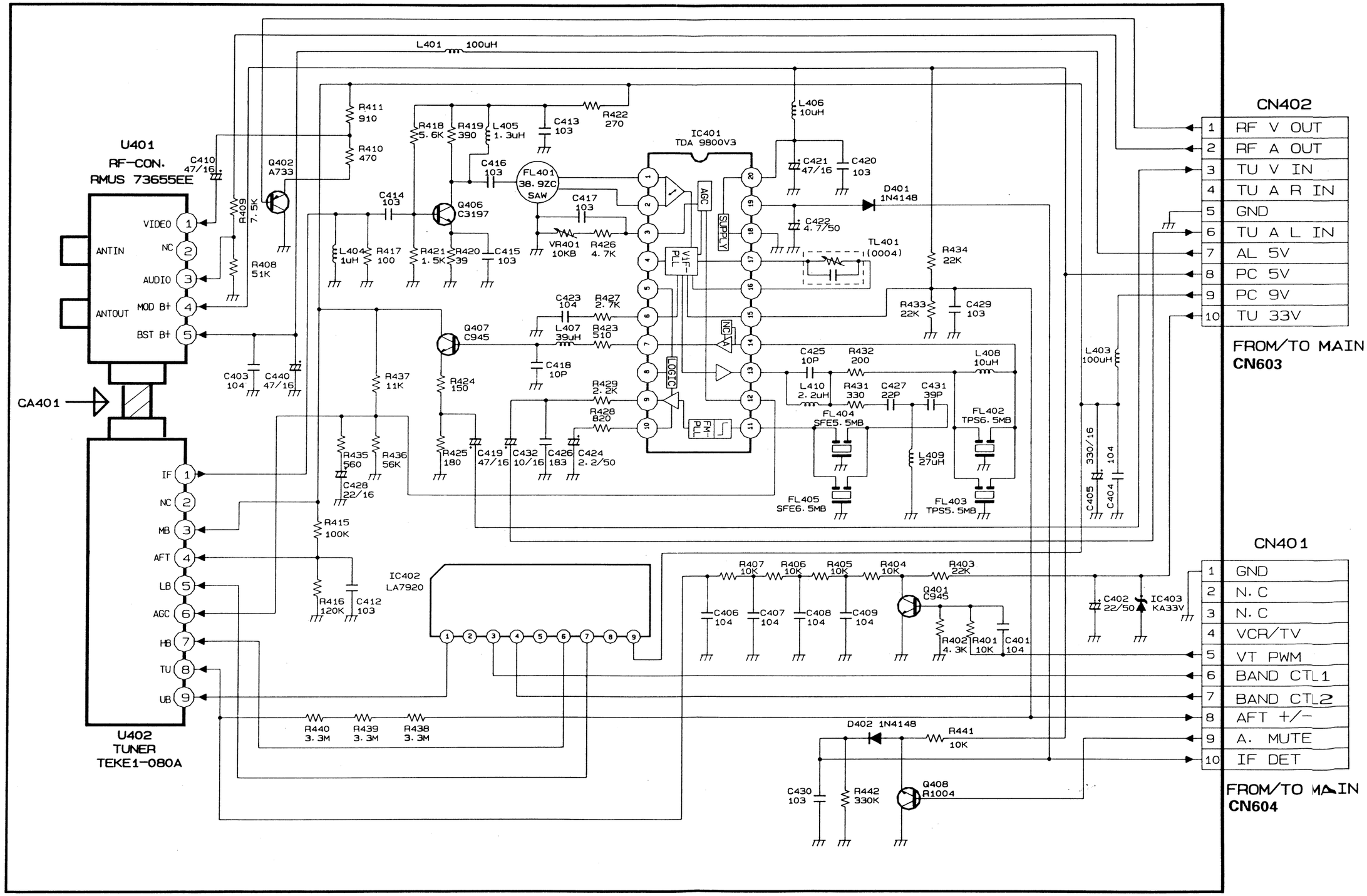
I/O

10-8. I/O


R4313 820(1/4W)
D4301 1N4148
Q4301 R2001
FROM SUB
PS1 RF V. OUT
PS2 RF A. OUT
PS3 TU V IN
PS6 TU A L IN
(CN402)
PS2 M S/W CTL (CN401)
IC4302 KA8403
OR
BUF
BIAS
Q4302 R1004
FROM TIMER
IF1 AUX V. IN
IF2 AUX A. IN
FROM SMPS
IP1 PC 9V
IP2 PC 12V
IP3 PC 5V
IP4 AL 5V
FROM SYSCON
OI1 INPUT CTL2
OI2 INPUT CTL3
OI3 PB V
TO VIDEO
VI1 VIDEO IN
FROM/TO AUDIO
AI1 AUDIO IN
AI2 AUDIO OUT
TO SECAM
IS1 VIDEO IN
FROM OSD
IO1 INPUT SEL1
IO2 VIDEO OUT
JC4301
A. OUT(R)
A. IN(R)
A. OUT(L)
A. IN(L)
PERI. CTL
V. OUT
V. IN
SHIELD
JC4302
VIDEO OUT
AUDIO OUT
IC4301 KA8403
SW4301
* : CHIP PARTS

SUB

10-9. SUB

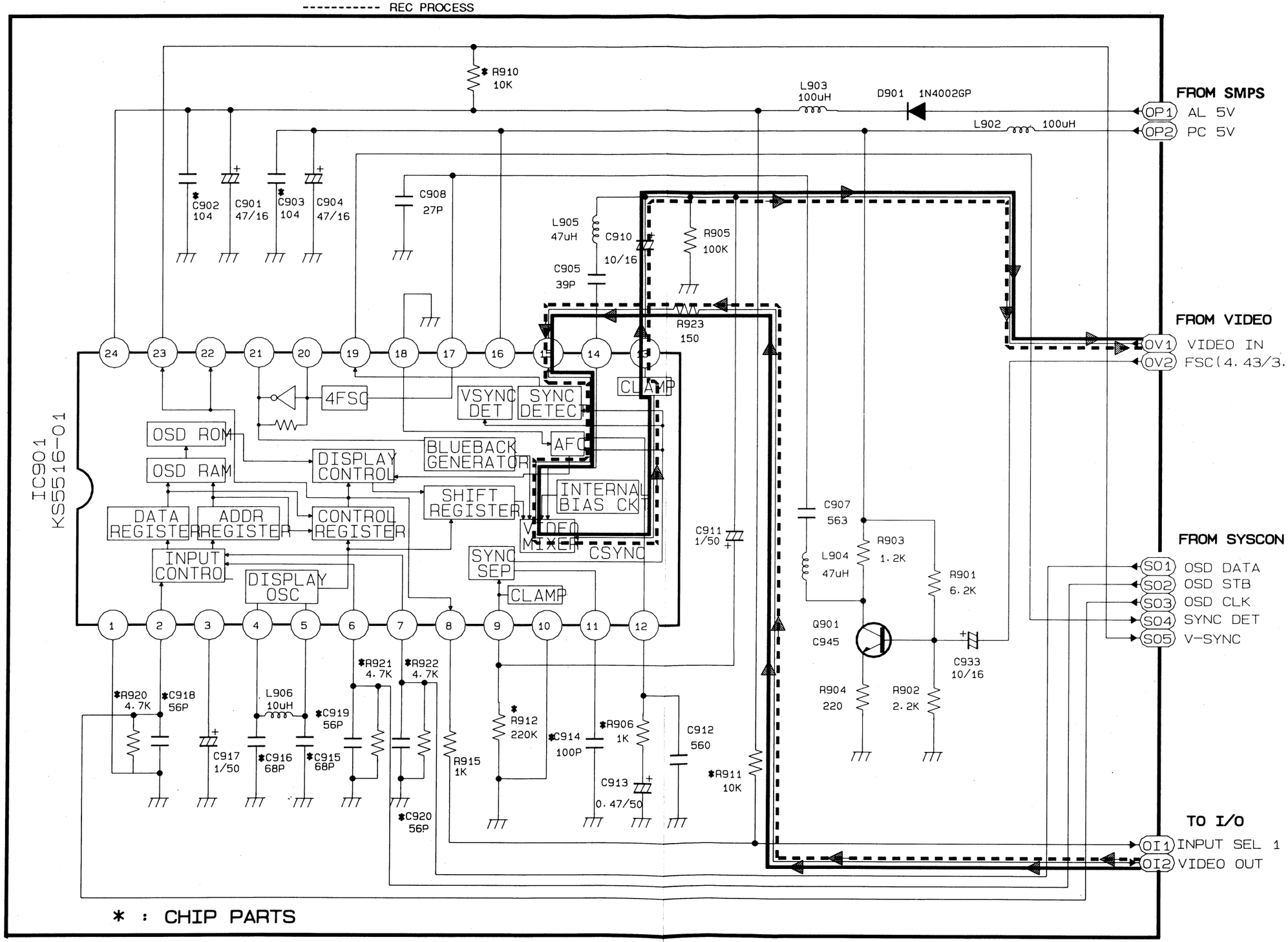

L401 100uH
U401
RF-CON.
RMUS 73655EE
VIDEO
ANTIN
NC
AUDIO
ANTOUT
MOD B+
BST B+
CA401
U402
TUNER
TEKE1-080A
IF
NC
MB
AFT
LB
AGC
HB
TU
UB
IC401
TDA 9800V3
IC402
LA7920
Q402 A733
Q406 C3197
Q407 C945
FL401 38.9ZC SAW
VR401 10KB
TL401 (0004)
D401 1N4148
D402 1N4148
Q401 C945
Q408 R1004
FL402 TPS6.5MB
FL403 TPS5.5MB
FL404 SFE5.5MB
FL405 SFE6.5MB
CN402
1 RF V OUT
2 RF A OUT
3 TU V IN
4 TU A R IN
5 GND
6 TU A L IN
7 AL 5V
8 PC 5V
9 PC 9V
10 TU 33V
FROM/TO MAIN
CN603
CN401
1 GND
2 N.C
3 N.C
4 VCR/TV
5 VT PWM
6 BAND CTL1
7 BAND CTL2
8 AFT +/-
9 A. MUTE
10 IF DET
FROM/TO MAIN
CN604

O. S. D

10-10. O.S.D

RED

PB PROCESS
REC PROCESS

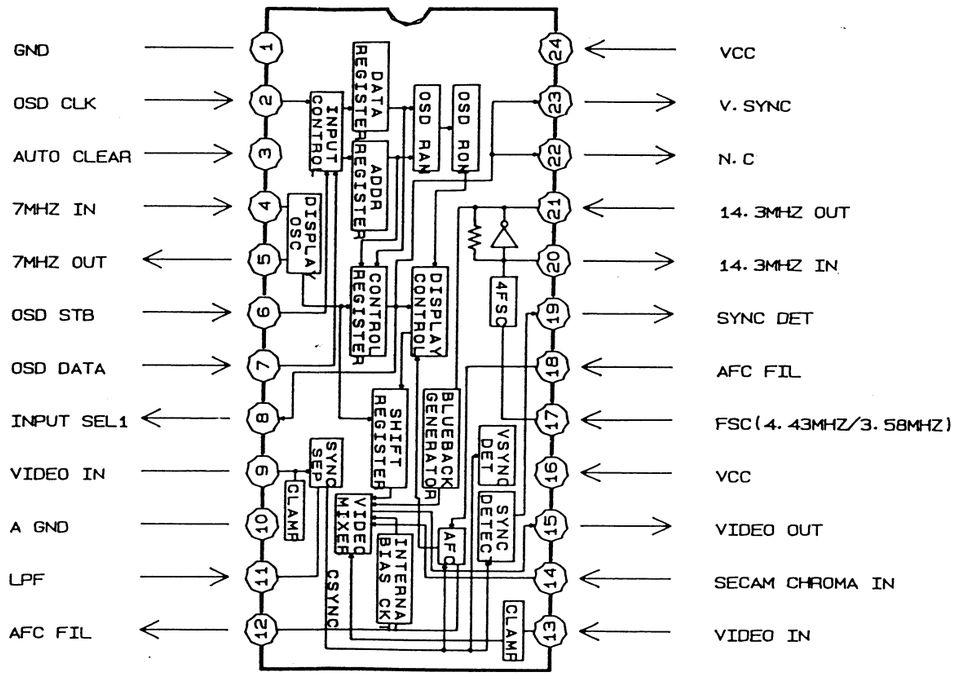


* : CHIP PARTS

O. S. D

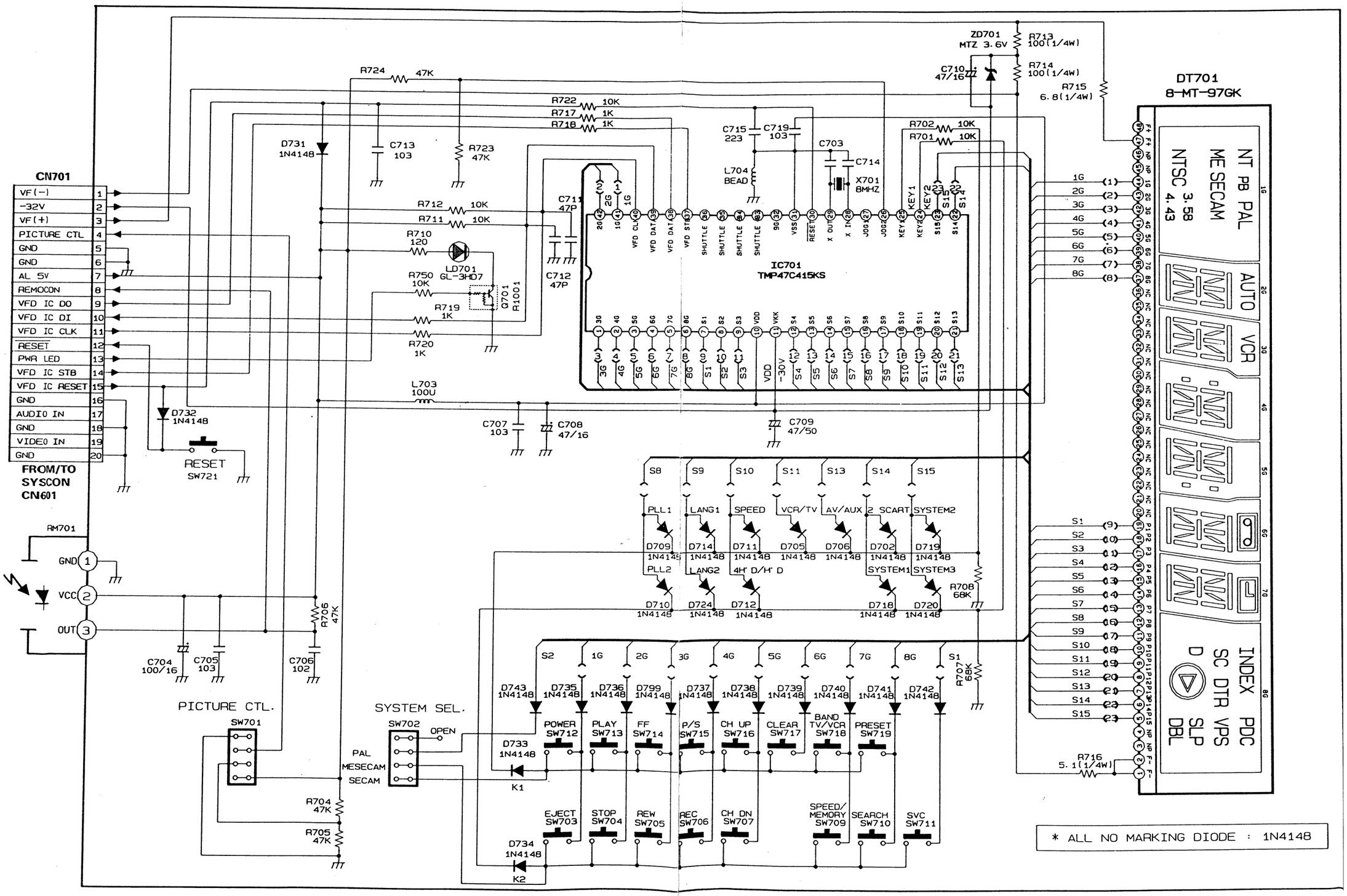
MODE / PIN NO	E-E	BLUE
IC901		
1	0	0
2	0 - 4	0 - 4
3	3.6	3.6
4	7MHZ 4Vp-p	7MHZ 4Vp-p
5	7MHZ 3Vp-p	7MHZ 3Vp-p
6	0 - 4	0 - 4
7	0 - 4	0 - 4
8	0 - 4.2	0 - 4.2
9	1.6	1.6
10	0	0
11	1.8	1.8
12	2.4	2.4V / 1.2V
13	1.8	1.5V
14	1.8	0
15	2.0	2.0
16	5.0	5.0
17	FSC 1.6Vp-p	FSC 1.6Vp-p
18	5.2	5.2
19	5.0	0
20	0	0
21	0	0
22	0	0
23	0 / 4.4	4.4V
24	5.2	5.2V

IC901 KS5516



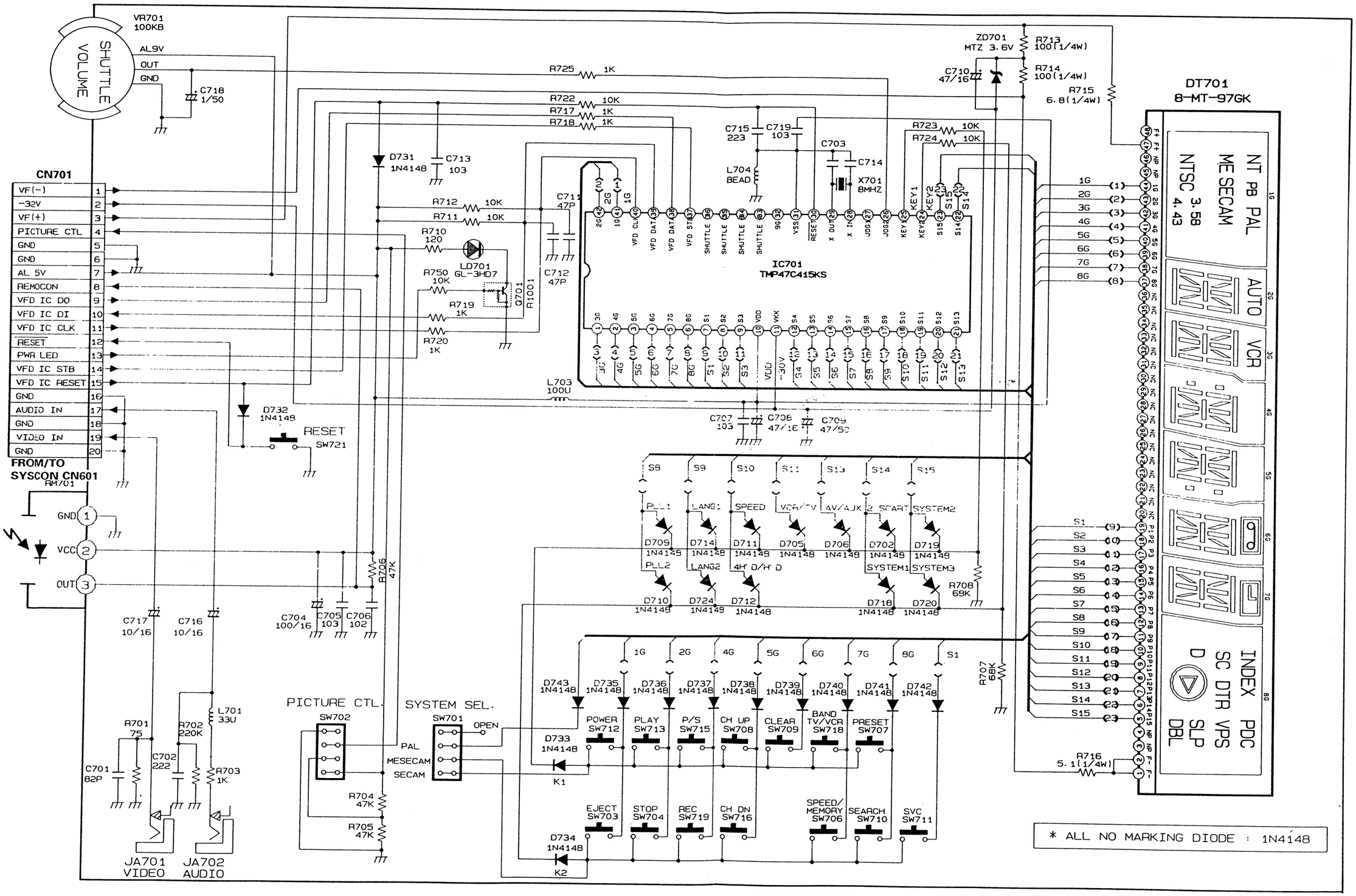
FUNCTION-TIMER

10-11. FUNCTION-TIMER (SV-30K/70K/SVR-30D/70D)

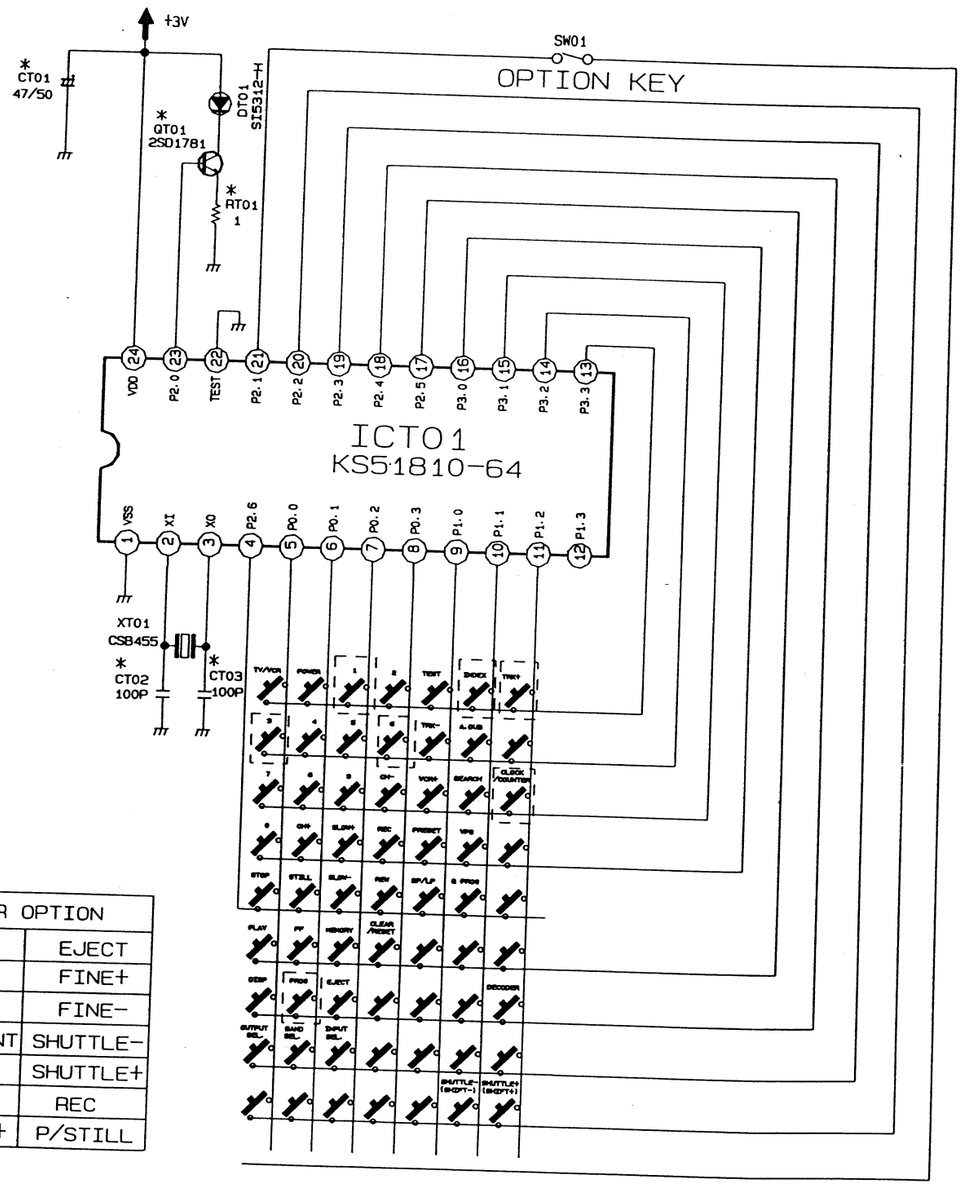


FUNCTION-TIMER

10-12. FUNCTION-TIMER (SV-40K/80K/SVR-40D/80D)



10-12. REMOTE CONTROL



DOOR OPTION	
1	EJECT
3	FINE+
6	FINE-
CLK/COUNT	SHUTTLE-
PROG	SHUTTLE+
INDEX	REC
FINE UP+	P/STILL

MEMO